DGDC Meeting Minutes
May 11, 2017

Attendance List:

Hillary Austin	DSHA
Roger Barlow	USGS
David Braig	JMT
Lori Brown	DNREC/NPS
Mary Ann Burnett	Artesian Water
Terrance Burns	HCA-SHPO
Don Burris	Delasoft
Tommy Burton	Artesian Water
Austin Calamon	Lewes BPW
Kim Cloud	DTI
Taryn Davidson	Kent County
Darin Dell	DTI
Mike DelTufo	DTI
Josh Gritten	Lewes BPW
Allice Guerrant	DHCA
Jay Hodny	Kent County
Joe Kochendarfer	Pictometry
George Koch	Kent County
Jimmy Kroon	DDA
Matthew Laick	DSHS
Danielle Lamborn	Kent County
Cole Larson-Whittaker	Winterthur
Mike Mahaffie	DNREC
Megan Nehrbas	Sussex County
Mark Nowak	City of Dover
Miriam Pomilio	OSPC
Analisa Rusnack	US Census
Lori Schnick	Winterthur
Tom Schwartzman	Esri
Eddie Starr	Pictometry
Michael Sutherland	DHCA
Doyle Tiller	OMB/DFM
Mike Townshend	DTI
Seth VanAken	Esri
Tom West	City of Lewes

Welcome & Introductions

Miriam Pomilio started the meeting at 9:08 am. She welcomed everyone to the meeting and introductions were made.

February 9, 2017 Meeting Minutes

Jimmy Kroon made a motion to approve the February 9, 2017 Meeting Minutes (PDF). Alice Guerrant seconded the motion and it passed unanimously.

Geospatial Education Committee

Miriam Pomilio provided an update on the Geospatial Education committee. Esri sponsored a K-12 contest nationwide and Delaware participated. Participants were awarded $100 gift cards for their winning entries.

Nicole is working with the GIS Day committee and will be holding the field trip event again this year on November 15 at the Dover Air Mobility Command Museum. If you're interested in volunteering to assist in this field trip please contact Miriam Pomilio directly. Sponsorships are also welcome to provide needed funding for the Earth Balloon, supplies and volunteer lunch.

Miriam reported she has been working with the Delaware Geographic Alliance and a group of social studies teachers to revise and update the 10th grade Geography course curriculum. The intent is to include more GIS related activities into each curriculum unit.

Aerial Imagery Update

Miriam Pomilio reported that the Surdex completed flights in early March and is processing the imagery now. Delaware will receive a pilot area for review this week. Surdex reports they are on schedule for delivery of the full product in late-summer 2017.

Matt Laick reported that Department of Safety and Homeland Security has received their Pictometry imagery for the use by Public Safety organizations in Delaware. The imagery is 9 inch resolution and includes oblique imagery.

Technical Advisory Committee & FirstMap Update

Mike Townshend indicated the Technical Advisory Committee met last Thursday (May 4). The Department of Technology and Information (DTI) will be releasing updates for ArcGIS Desktop 10.5.1 in July 2017. Mike is testing the using of Vector Tiling for some of the data on FirstMap and will report back regarding the results. Miriam is interested in starting a sub-committee to look at a Long Term Plan for FirstMap and GIS in Delaware. If you are interested in being a part of this sub-committee please contact Miriam directly. The FirstMap team is exploring the creation of a Color basemap without contours. DTI has contacted Esri to become a partner in the Community Basemaps and will be sharing the municipal, communities and public protected land features as well as imagery with this program.

In addition, FirstMap is looking to market their services better. It was suggested that contact be made at the State IRM committee and County and Municipalities to get more information distributed to them regarding the offerings from FirstMap.

As always if you experience issues, please contact the team at FirstMap@state.de.us.

Presentation – Winterthur Gardens Mapping Project

Lori Schnick and Cole Larson-Whittaker of Winterthur provided a presentation on their Gardens Mapping Project. Winterthur is undertaking a very innovative approach to mapping all the plantings in their garden and referencing each plant with rich information about each species. Starting with only historic paper maps and moving towards GIS collection and inventory. See the presentation attached.

Presentation – Return on Investment (ROI) Department Of Agriculture

Jimmy Kroon of DDA presented on a recent ROI he undertook for the Annual Compliance reporting for their Preservation Program. The creation of a mobile application using Collector saved the Department of Agriculture approximately $22,000 in the first year. See attached presentation for additional detail.

Presentation – Esri – ArcGIS 10.5 Update

Seth Van Aken and Tom Schwartzman of Esri presented an update on ArcGIS 10.5 and demonstrated Insights which permits the integration of charts and graphics in a real-time dashboard.

Federal Update

USGS – Roger Barlow indicated that USGS continues to negotiate the MOU with DNREC regarding the NHD dataset. There is a NHD web-service available through the USGS website. In addition, there is a new 1:24,000 scale NHD Plus – which includes time and travel in streamflow. This product previously was only available in the 1:100,000 scale.

The Baltimore Corps of Engineers is working on Coastal Zone LiDAR 500 meters inland and 1,000 meters off-shore looking for sediment sources and sandy areas. It will be Q2 level data on shore and they should be in Delaware sometime in July. Digital Coast will provide a shoreline derivative to be approved by NOAA (NAV88 land based).

Census – Analisa Rusnack reported that they are gearing up for the Decennial Census coming up in just 3 years. They are estimating where to count using mailing address and local updates of Census Addressing. They are in the process of their LUCA review and should be sending out a request in July 2017 with a return date of December 2017. There will be October workshops for technical folks regarding the census tracts and block boundaries.

Open Comment Period

Seth Van Aken – Esri – Looking for locations in the region to host an Introductory Pro Workshop.

Jay Hodny – City of Newark – A Crowd Sourcing App for their Police Department has been selected for the Esri SAG award. It's an app for non-emergency reports.

Mike Townshend – DTI – DTI is assisting DEMA with a pilot project using Drone2map. Updating the Geocoder Service on FirstMap and enabling "suggestions". The Parcels, communities and Centerlines will be updated soon.

Lori Brown – DNREC/NPS – Working on a High Risk Lawn analysis "livable lawns". Will publish to ArcGIS online when completed

Jimmy Kroon – Dept. of Ag - Working on a Tree Canopy app allowing you to search by community to find percentage tree canopy.

Roger Barlow – USGS – Indicated there is a budget of 4.5 million for LiDAR acquisition – approximately 2.5 million is being used in Alaska, the portion in the Chesapeake Bay is being spent in Pennsylvania.

Mark Nowak – City of Dover – They are using Collector to identify and locate all the "No Smoking" signs on city owned parcels. In addition they did a Return on Investments (ROI) by locating all recycling bins in the city and found they were being charged for 180 cans that didn't exist so they were able to rectify the billing.

Danielle Lamborn – Kent County – Using Workflows for enforcers, tasks, reminders for re-inspection, etc. Lots of work going on with updating their Comprehensive Plan, they intend to create a Story Map for it.

Alice Guerrant – Historic – The Public National Register map is broken and hasn't been corrected due to a funding issue.

Michael Sutherland – Historic Preservation – Researching 20-30,000 property and creating a story map regarding how historic properties are affected by Sea Level Rise.

Megan Nehrbas – Sussex County – Delmarva GIS Conference coming up April 26-27, 2018 at Dover Downs.

Artesian – Working on Station meters and effluent pumps. Also digitizing data form 1920 forward for Town of Odessa. Helping update easements to waterlines

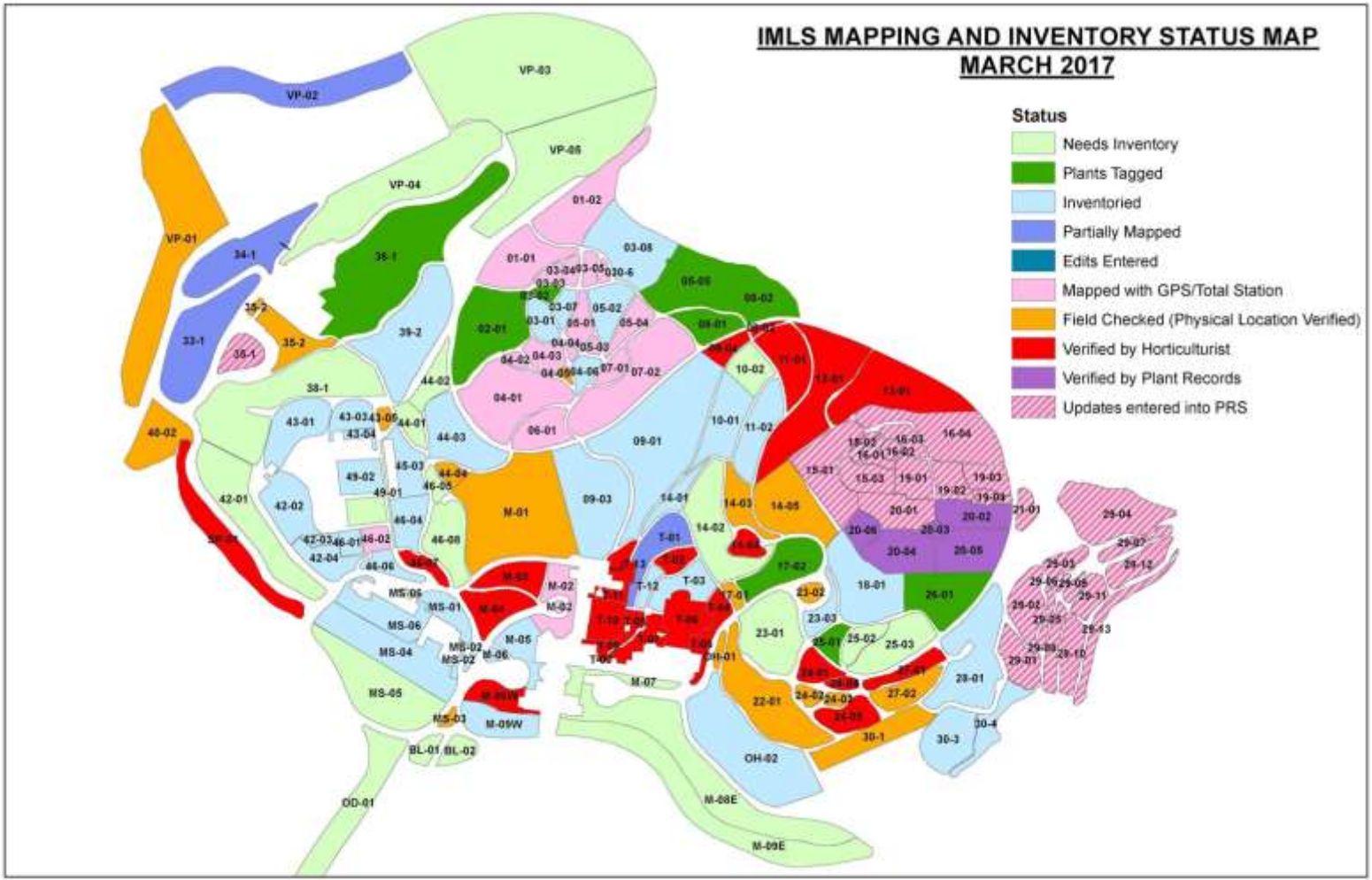
Tom West – City of Lewes – Acquiring ArcGIS Desktop 10.5 soon and implementing GIS for the city.

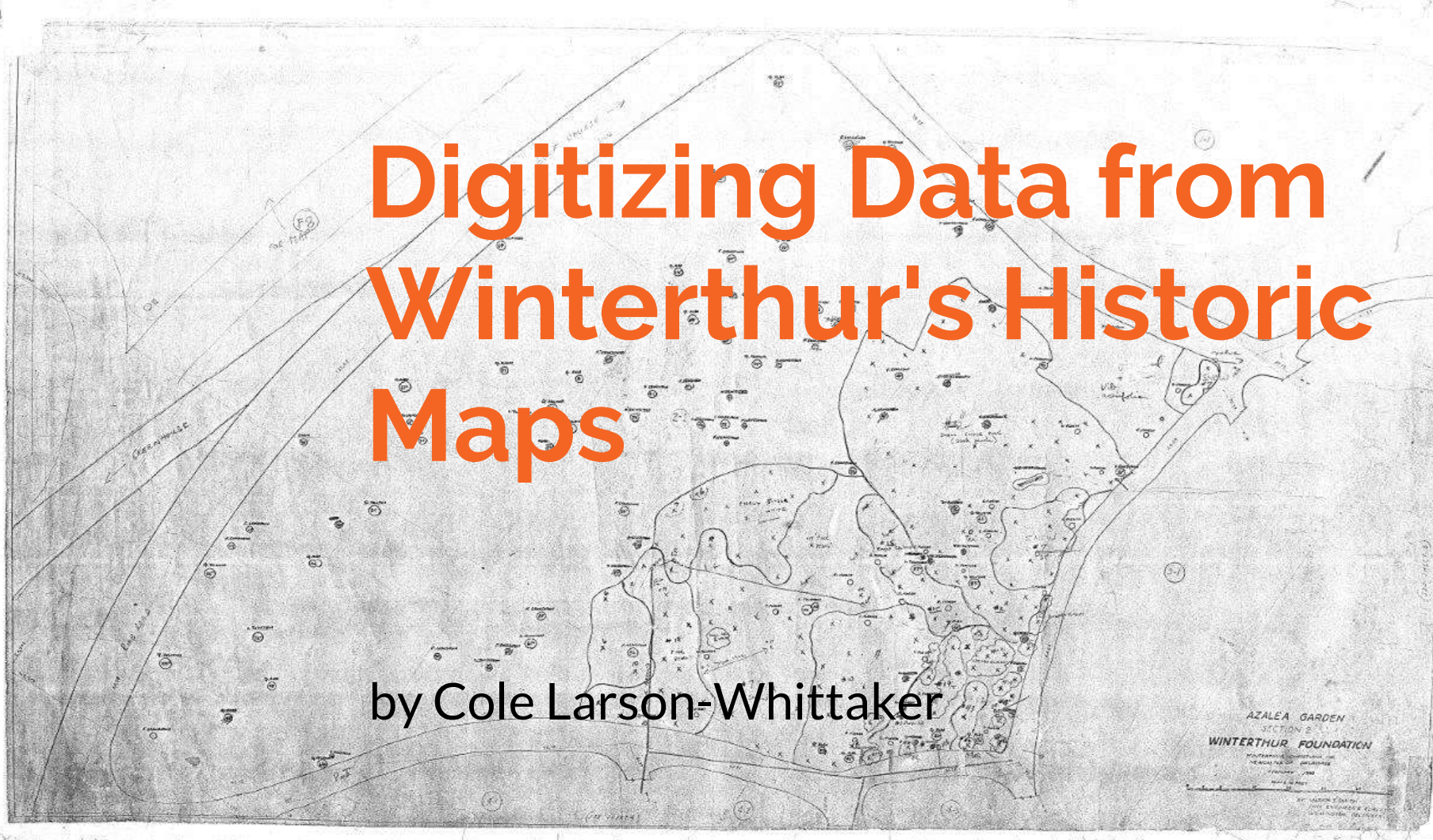
Next Meeting

The next DGDC Quarterly meeting will be Thursday August 10, 2017 at the Kent County Administrative Complex, Room 220 and start at 9:00 am.

Adjournment

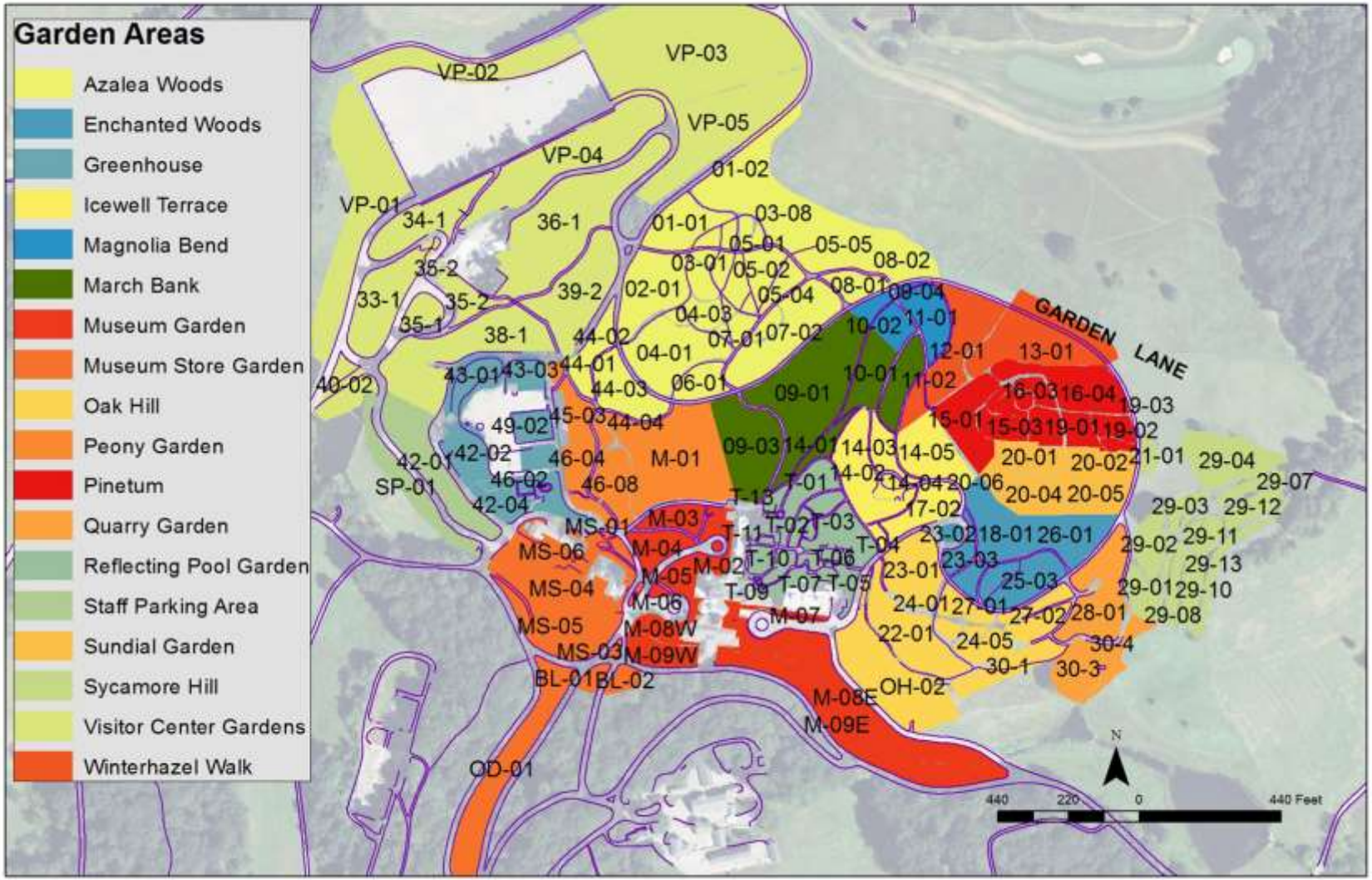
Roger Barlow made a motion to adjourn the meeting and it was seconded by Mike Townshend. The meeting was adjourned at 11:49 am.


IMLS MAPPING AND INVENTORY STATUS MAP
MARCH 2017
Status
Needs Inventory
Plants Tagged
Inventoried
Partially Mapped
Edits Entered
Mapped with GPS/Total Station
Field Checked (Physical Location Verified)
Verified by Horticulturist
Verified by Plant Records
Updates entered into PRS



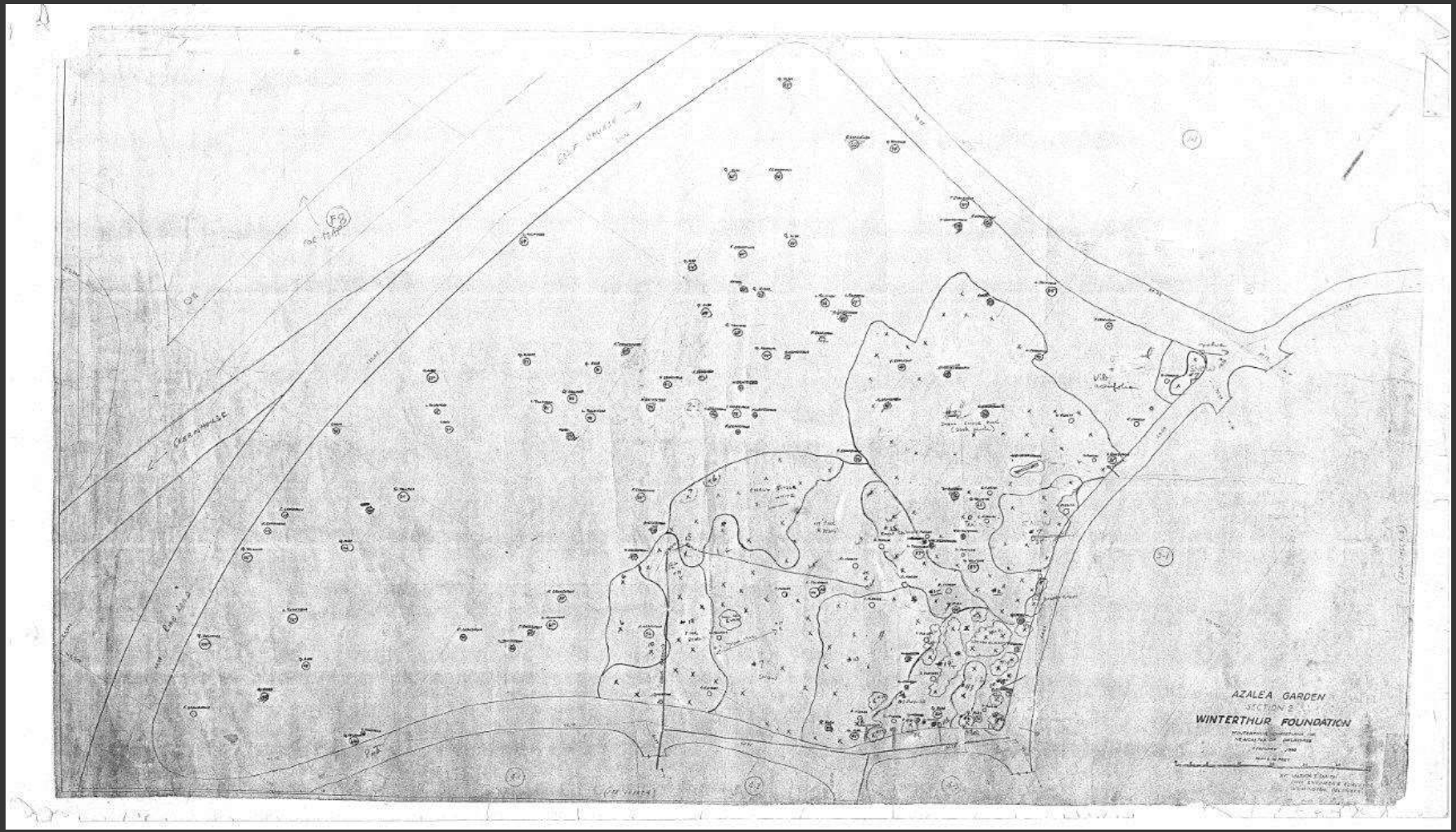
Digitizing Data from Winterthur's Historic Maps

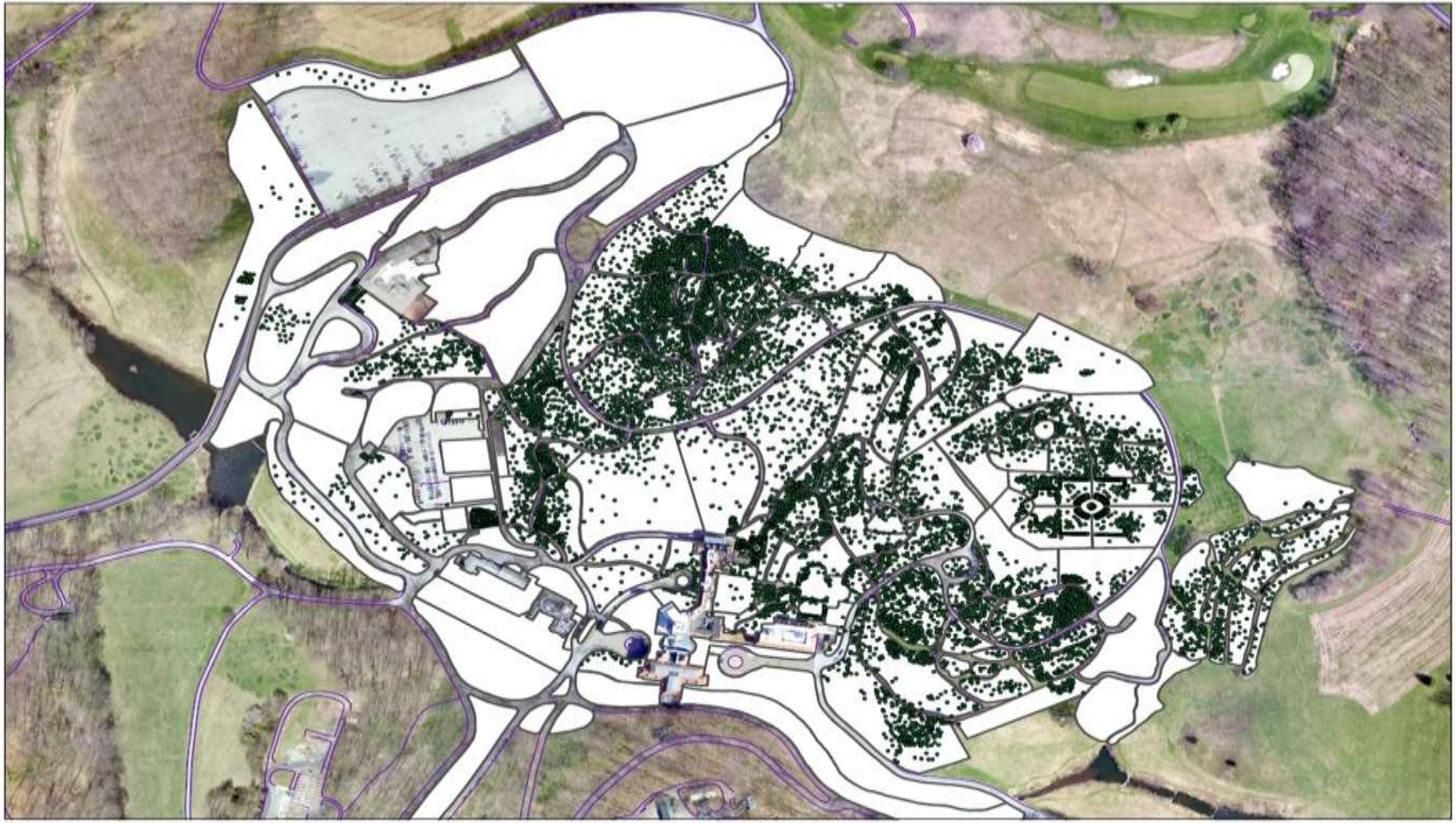
by Cole Larson-Whittaker


Garden Areas
Azalea Woods
Enchanted Woods
Greenhouse
Icewell Terrace
Magnolia Bend
March Bank
Museum Garden
Museum Store Garden
Oak Hill
Peony Garden
Pinetum
Quarry Garden
Reflecting Pool Garden
Staff Parking Area
Sundial Garden
Sycamore Hill
Visitor Center Gardens
Winterhazel Walk
GARDEN LANE
VP-01
VP-02
VP-03
VP-04
VP-05
OD-01
SP-01
BL-01
BL-02
MS-01
MS-03
MS-04
MS-05
MS-06
M-01
M-02
M-03
M-04
M-05
M-06
M-07
M-08E
M-08W
M-09E
M-09W
OH-02
N
440
220
0
440 Feet

Mapping at Winterthur

- Though H.F. DuPont began planting out his estate garden in the early 1900s, the earliest formal mapping was conducted in the early 1930s
- Around 1951 H.F. hired the surveying company that would become Vandemark and Lynch to map his formal gardens, which he named Azalea Woods
- In 1960, with most of the garden areas you see today completed, he had the gardens mapped again
- During the following three decades, mapping was done on an as needed basis, when a new garden area was put in
- In the late 1990s, Vandemark and Lynch was again hired to map the gardens, this time digitally using Auto-CAD drafting software


AZALEA GARDEN
SECTION 2
WINTERTHUR FOUNDATION



What's the point?

- ➔Conserves the maps and related data by creating a digital copy
- ➔Makes it easier for the staff to interpret the information on the maps
- ➔Creates an easily accessible archive of the data that could be accessed by future horticulturalists, landscape architects, and students

The digitizing process

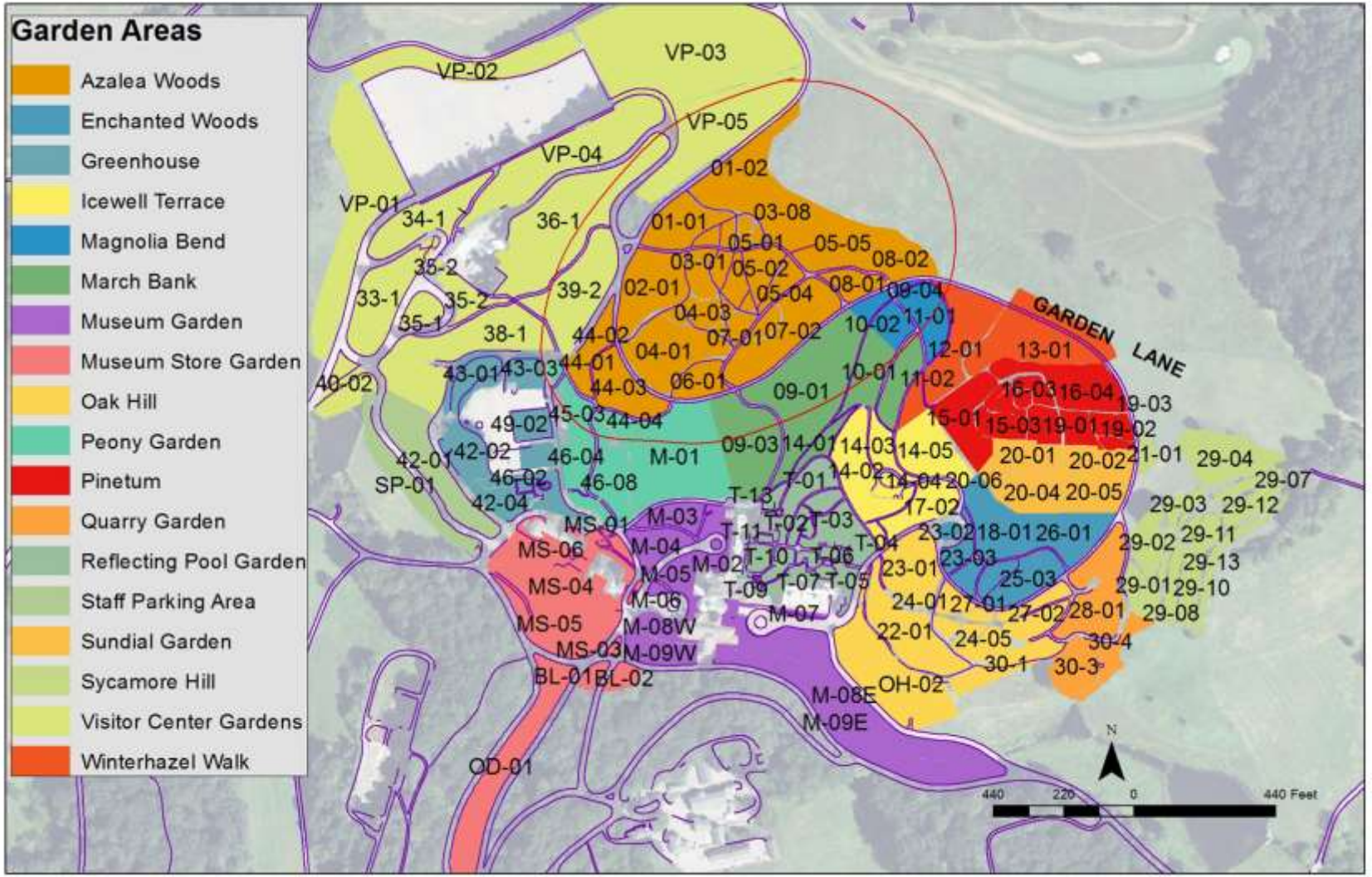
➔ **Scanning**

➔ **Georeferencing**

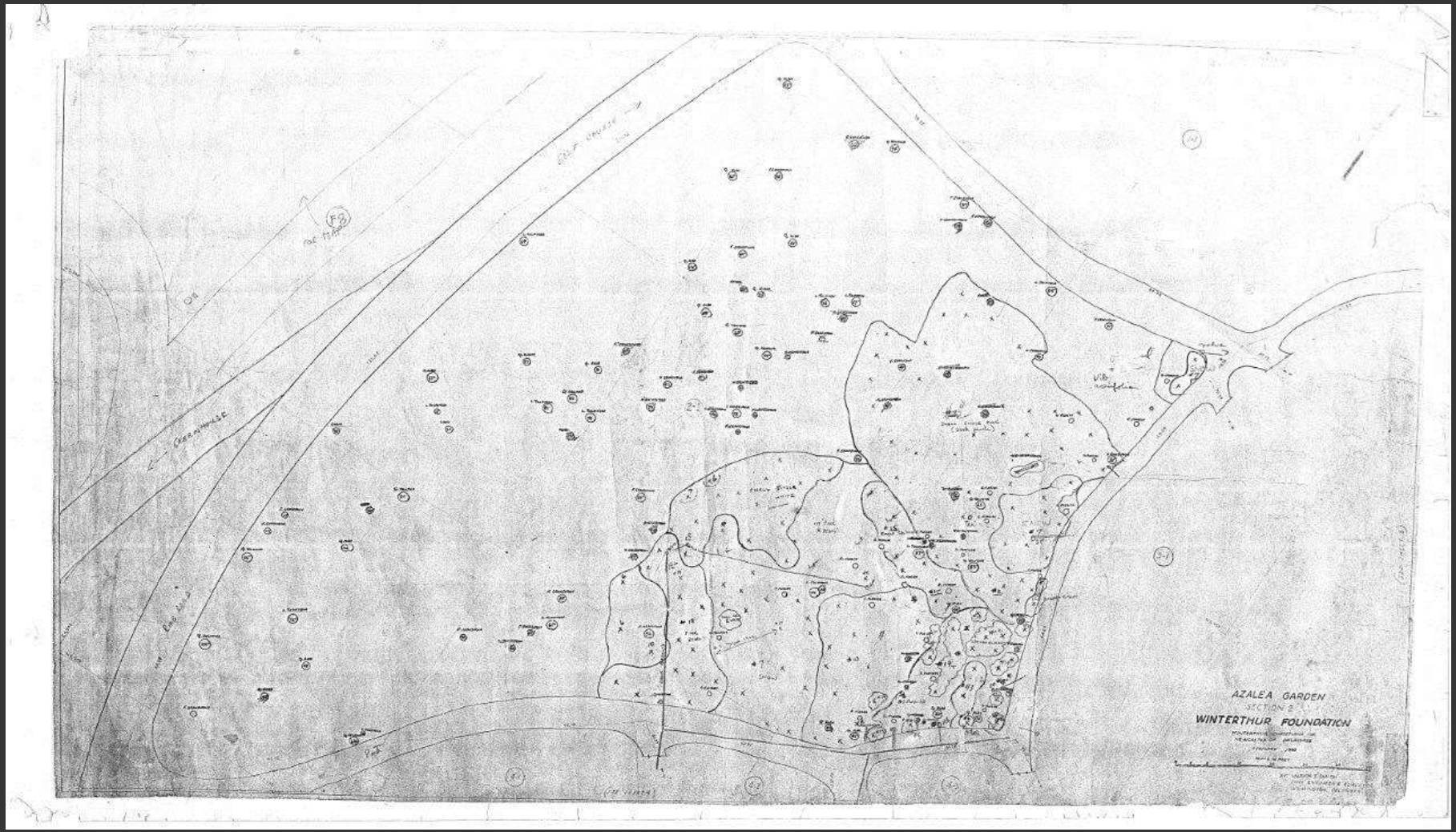
Using known locations on an old map to give it an accurate spatial reference

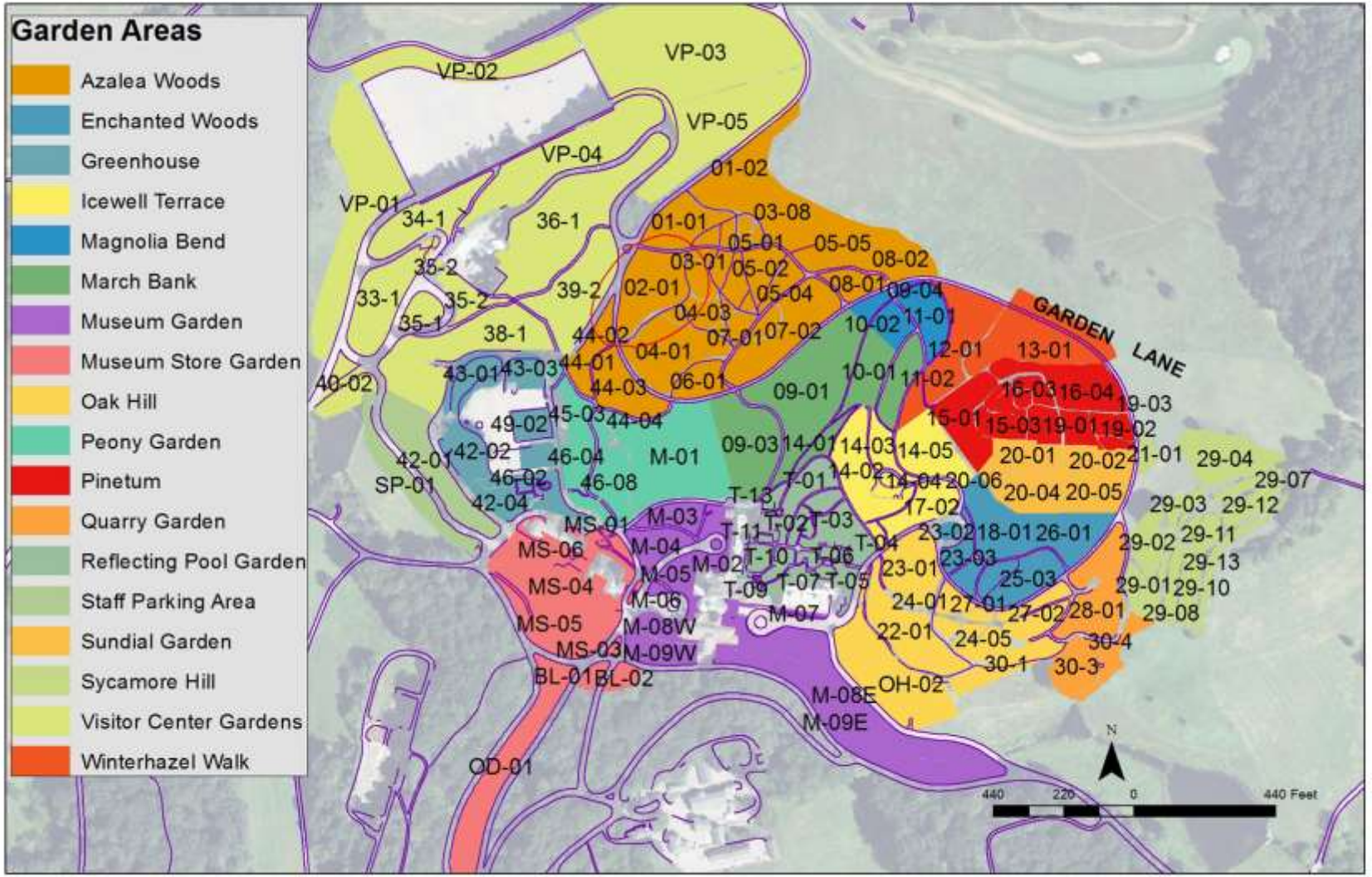
➔ **Extracting the data**

Creating data points using the georeferenced maps and populating the spatial database with information (i.e. plant names, section, garden, year mapped, etc.)


Garden Areas
Azalea Woods
Enchanted Woods
Greenhouse
Icewell Terrace
Magnolia Bend
March Bank
Museum Garden
Museum Store Garden
Oak Hill
Peony Garden
Pinetum
Quarry Garden
Reflecting Pool Garden
Staff Parking Area
Sundial Garden
Sycamore Hill
Visitor Center Gardens
Winterhazel Walk
GARDEN LANE
VP-01
VP-02
VP-03
VP-04
VP-05
OD-01
SP-01
BL-01
BL-02
MS-01
MS-03
MS-04
MS-05
MS-06
M-01
M-02
M-03
M-04
M-05
M-06
M-07
M-08E
M-08W
M-09E
M-09W
OH-02
N
440
220
0
440 Feet

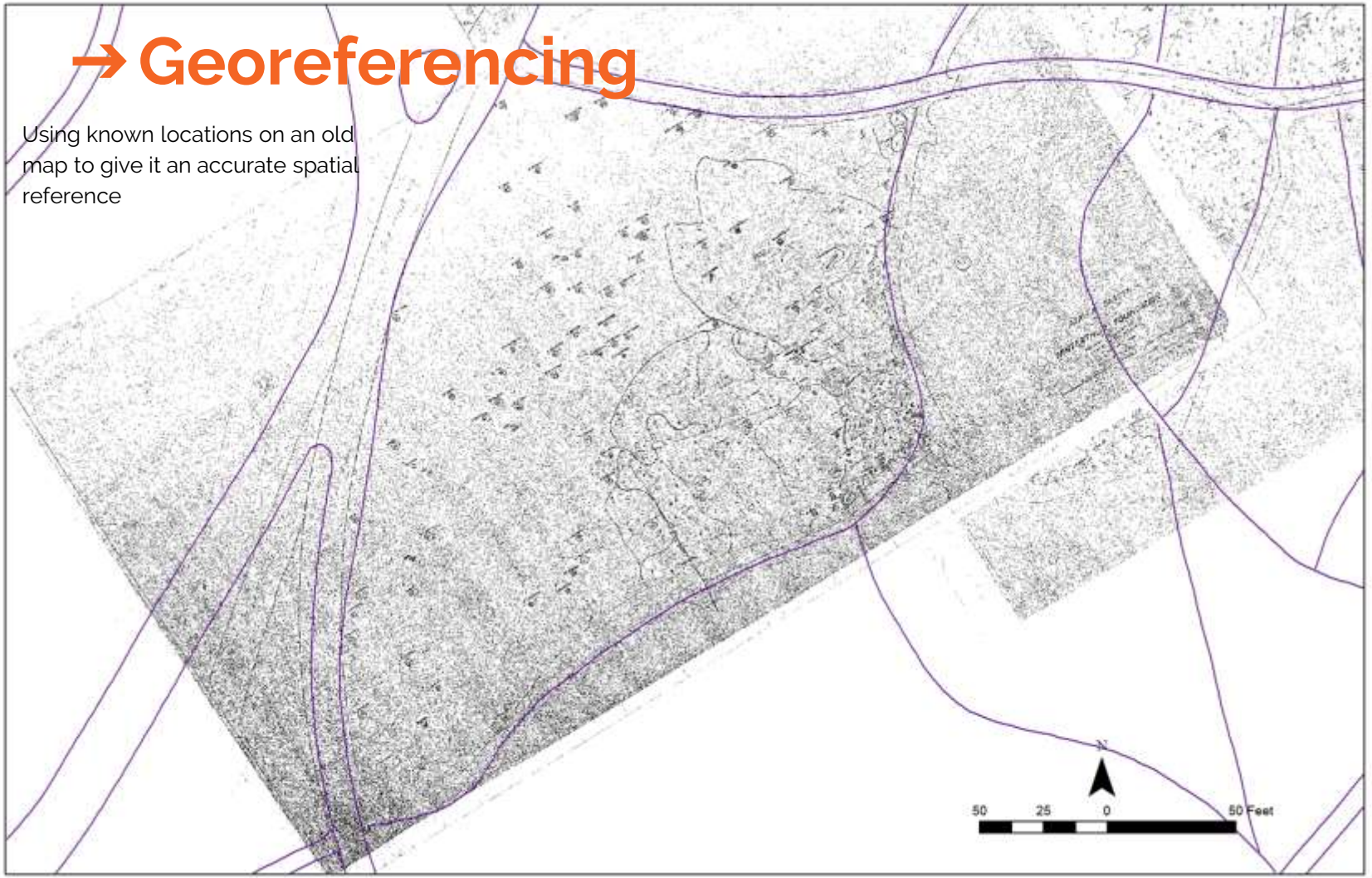
→ Scanning

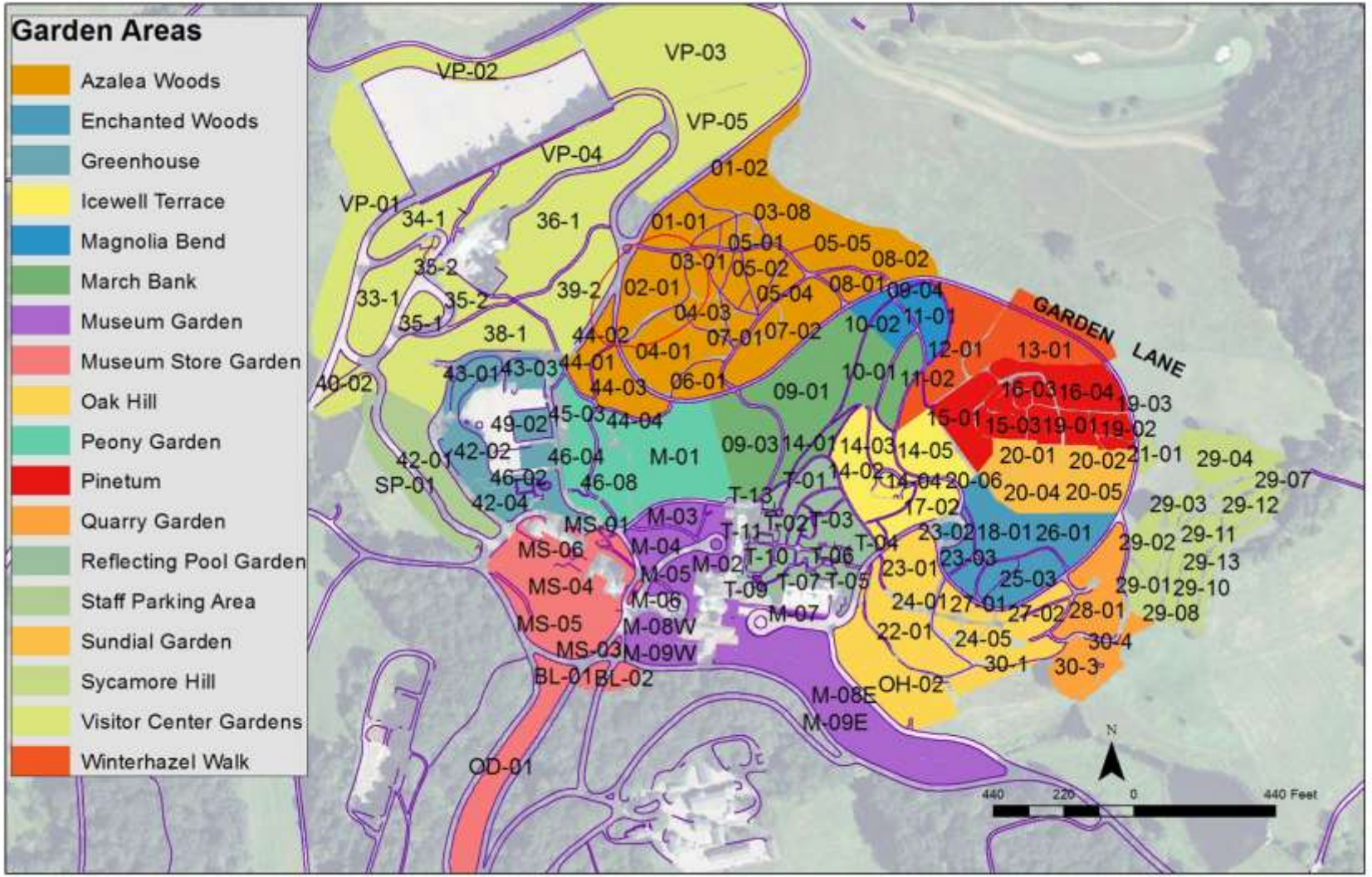

AZALEA GARDEN
SECTION 2
WINTERTHUR FOUNDATION

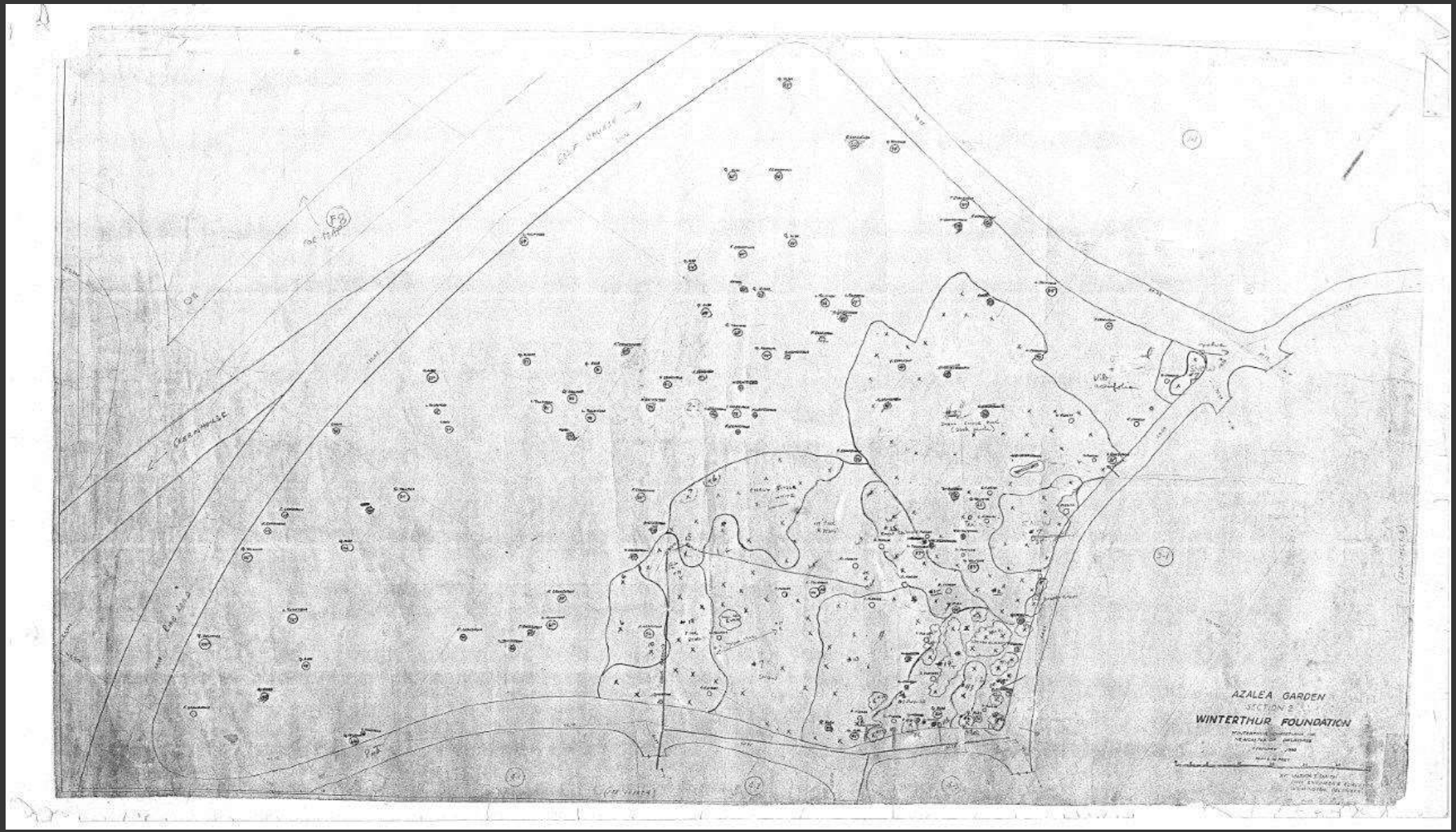

Garden Areas
Azalea Woods
Enchanted Woods
Greenhouse
Icewell Terrace
Magnolia Bend
March Bank
Museum Garden
Museum Store Garden
Oak Hill
Peony Garden
Pinetum
Quarry Garden
Reflecting Pool Garden
Staff Parking Area
Sundial Garden
Sycamore Hill
Visitor Center Gardens
Winterhazel Walk
GARDEN LANE
VP-01
VP-02
VP-03
VP-04
VP-05
OD-01
SP-01
BL-01
BL-02
MS-01
MS-03
MS-04
MS-05
MS-06
M-01
M-02
M-03
M-04
M-05
M-06
M-07
M-08E
M-08W
M-09E
M-09W
OH-02
T-01
T-02
T-03
T-04
T-05
T-06
T-07
T-09
T-10
T-11
T-13
N
440
220
0
440 Feet

→ Georeferencing

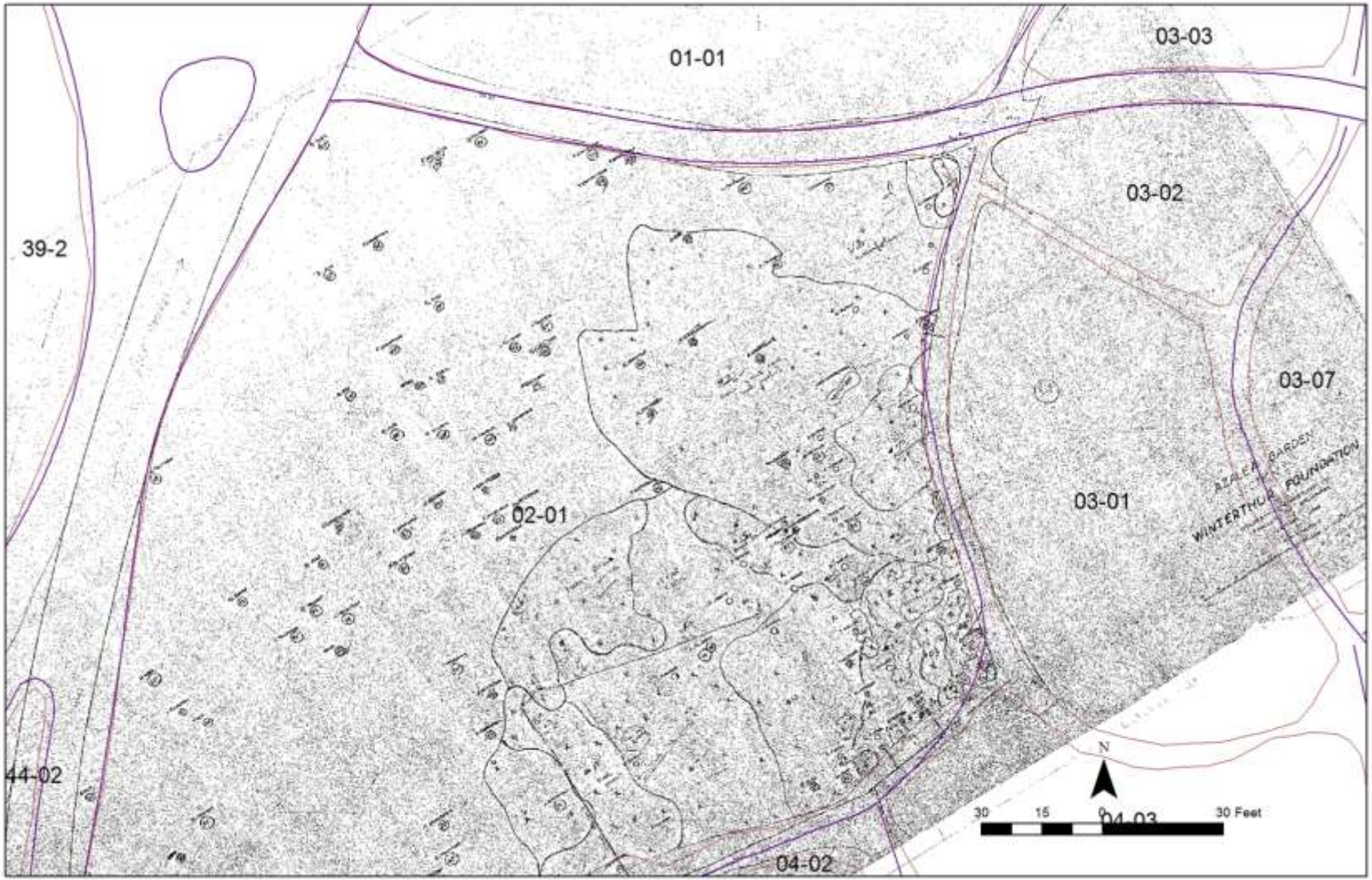
Using known locations on an old map to give it an accurate spatial reference

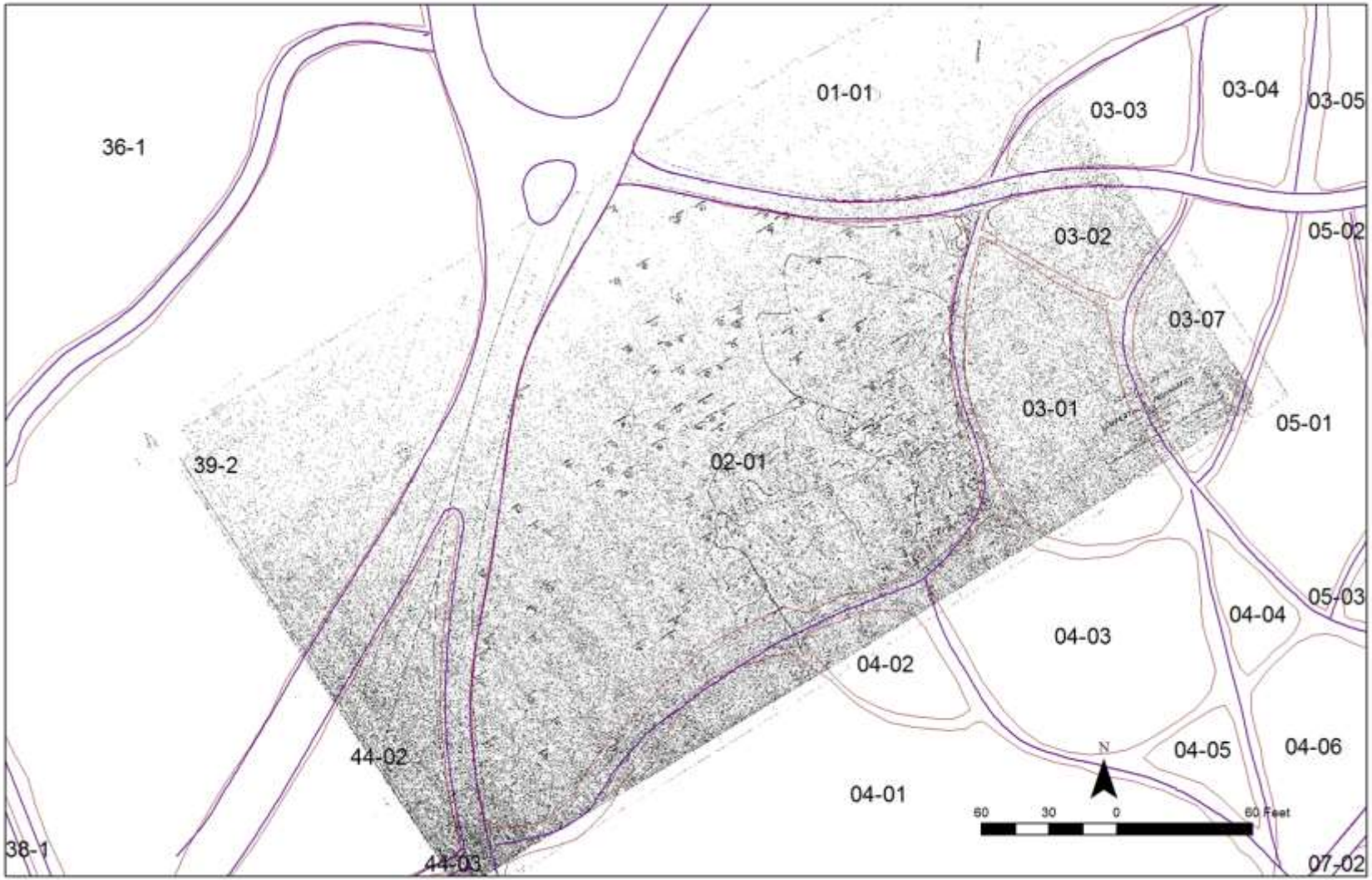


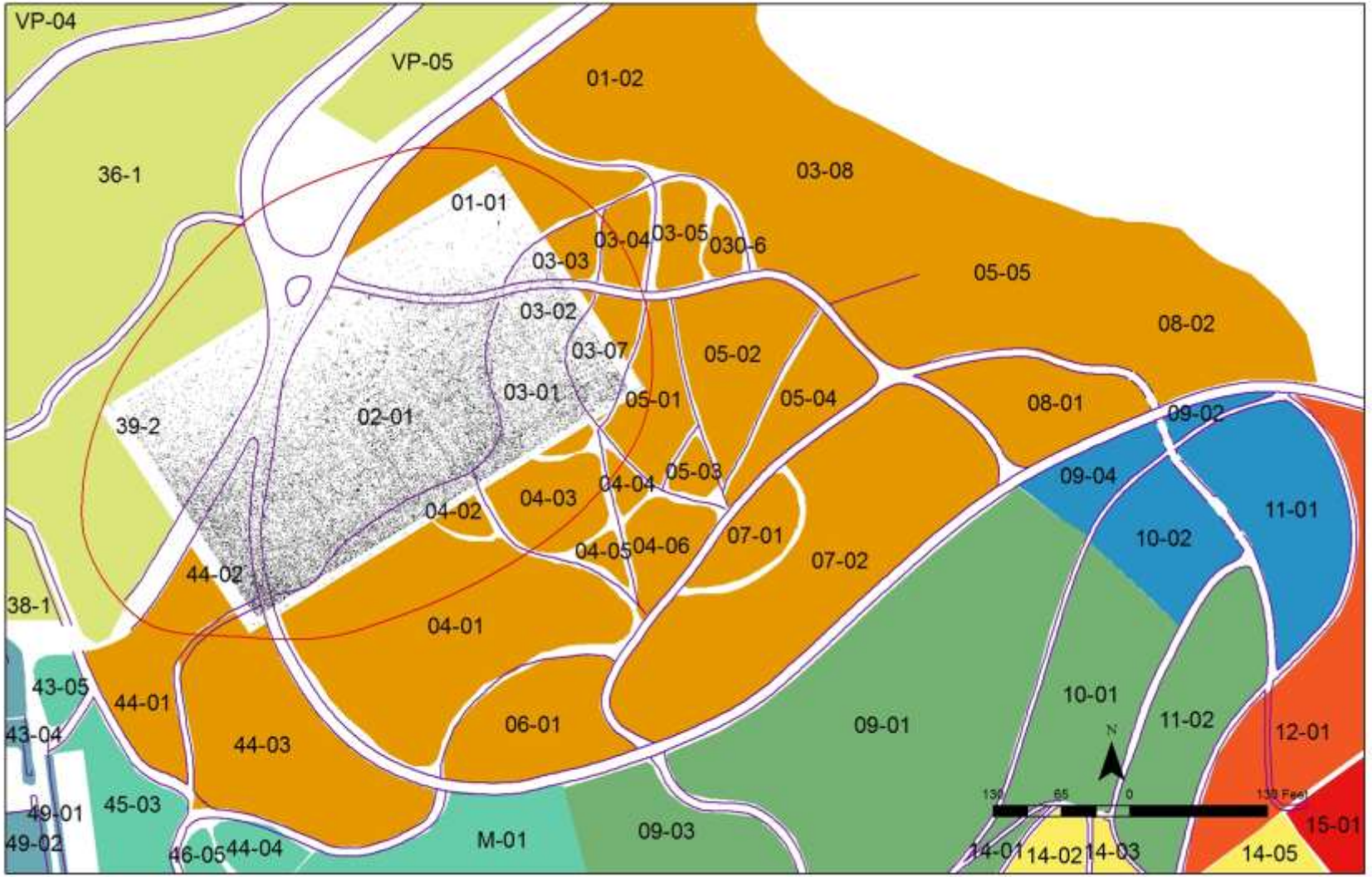

Garden Areas
Azalea Woods
Enchanted Woods
Greenhouse
Icewell Terrace
Magnolia Bend
March Bank
Museum Garden
Museum Store Garden
Oak Hill
Peony Garden
Pinetum
Quarry Garden
Reflecting Pool Garden
Staff Parking Area
Sundial Garden
Sycamore Hill
Visitor Center Gardens
Winterhazel Walk
GARDEN LANE
VP-01
VP-02
VP-03
VP-04
VP-05
OD-01
SP-01
BL-01
BL-02
MS-01
MS-03
MS-04
MS-05
MS-06
M-01
M-02
M-03
M-04
M-05
M-06
M-07
M-08E
M-08W
M-09E
M-09W
OH-02
T-01
T-02
T-03
T-04
T-05
T-06
T-07
T-09
T-10
T-11
T-13
N
440
220
0
440 Feet

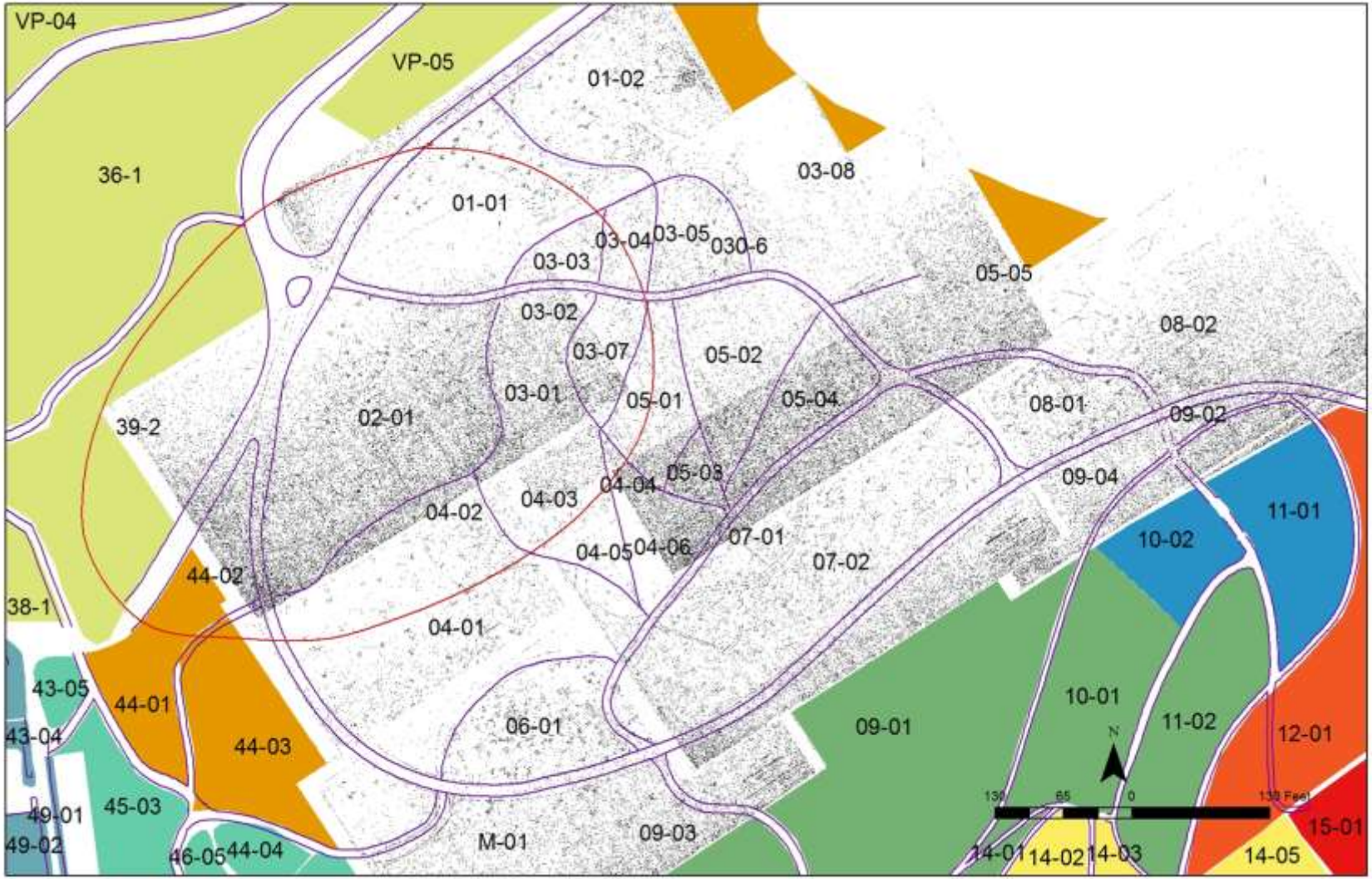

AZALEA GARDEN
SECTION 2
WINTERTHUR FOUNDATION

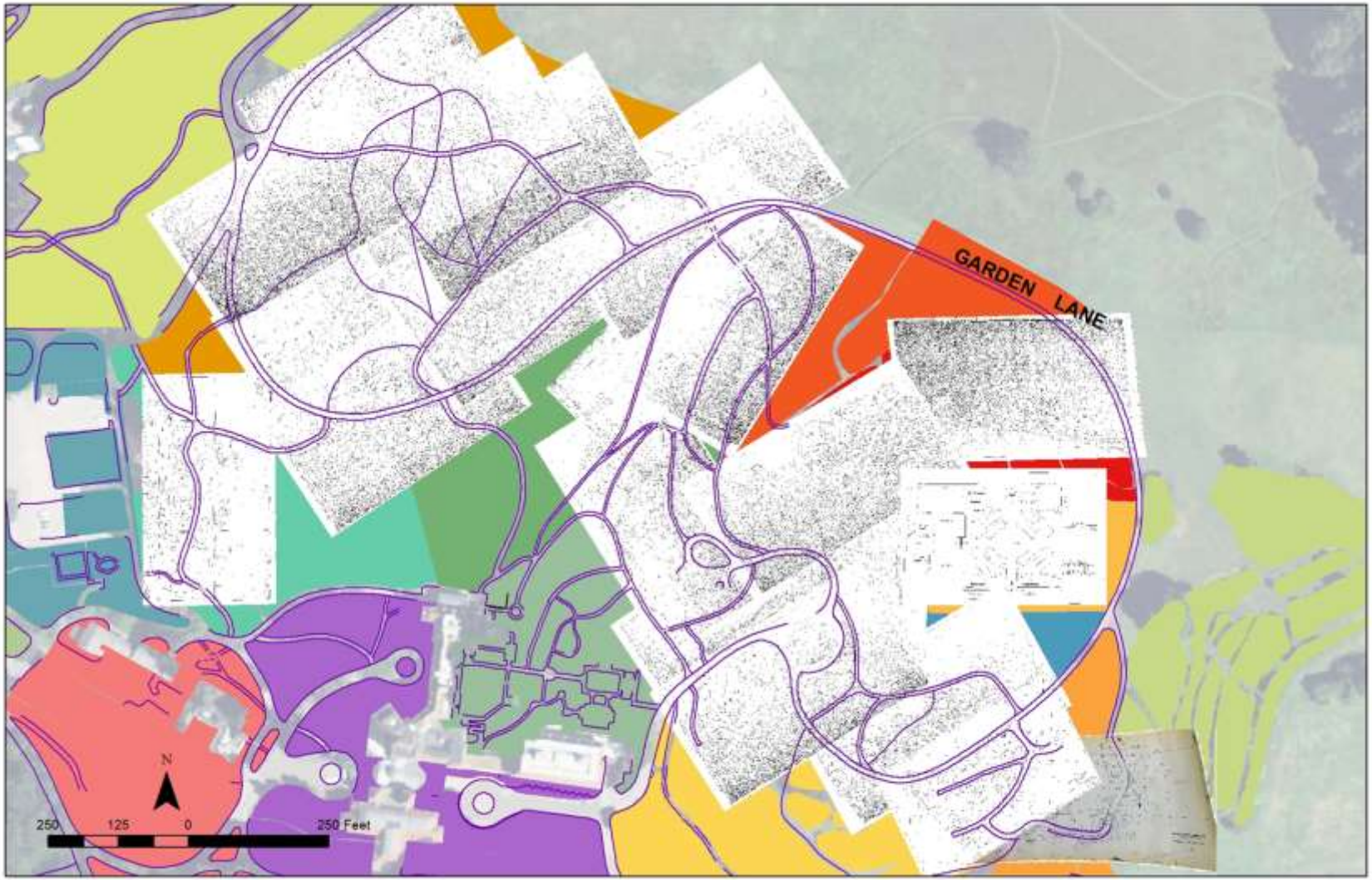

AZALEA GARDEN
WINTERTHUR FOUNDATION
N
30 15 0 30 Feet

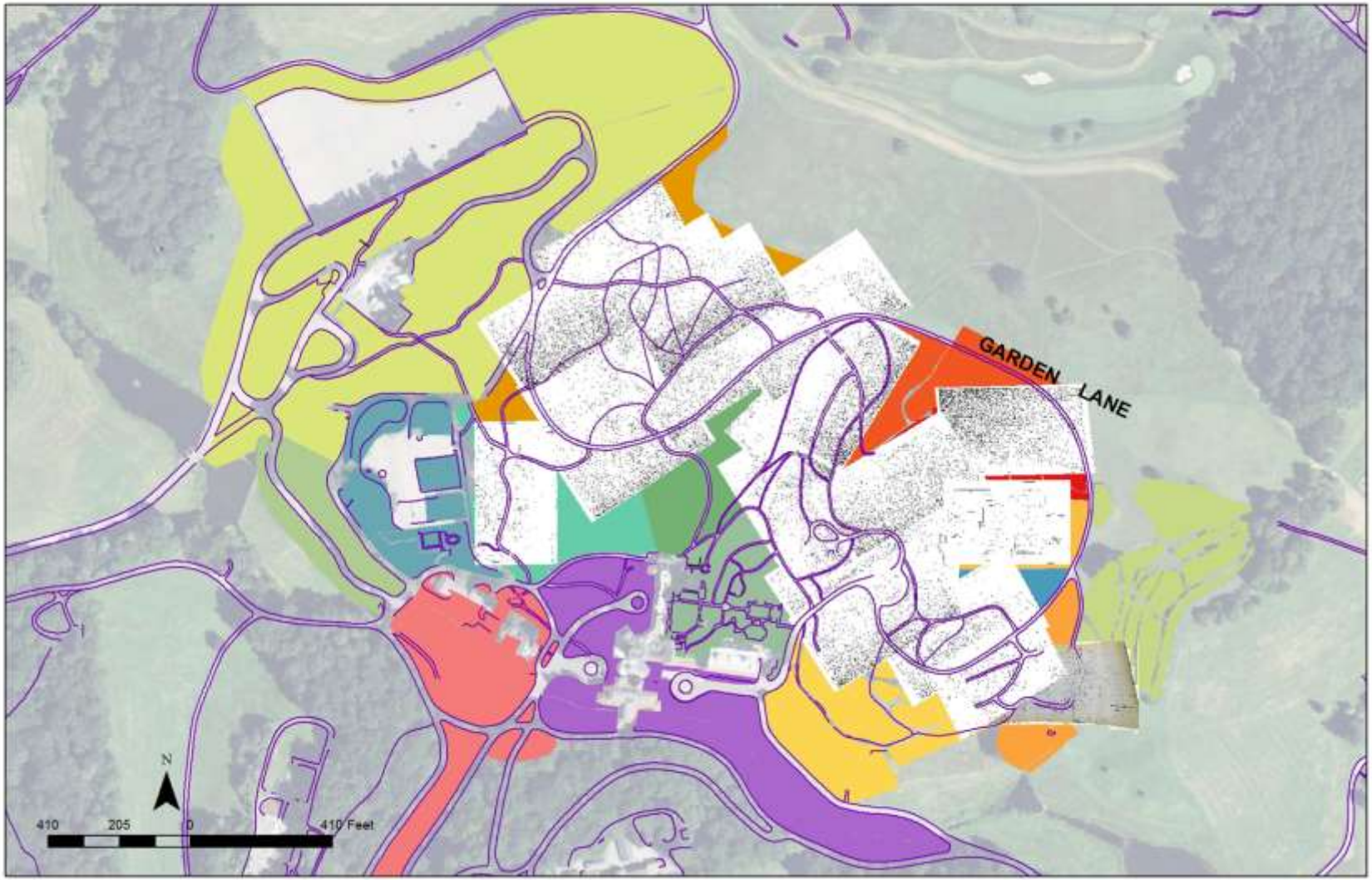

01-01
03-03
03-02
39-2
03-07
02-01
03-01
AZALEA GARDEN
WINTERTHUR FOUNDATION
44-02
N
30
15
0
30 Feet
04-03
04-02


01-01
03-03
03-04
03-05
36-1
03-02
05-02
03-07
03-01
05-01
39-2
02-01
05-03
04-04
04-03
04-02
N
04-05
04-06
44-02
04-01
50
30
0
60 Feet
38-1
44-03
07-02


VP-04
VP-05
01-02
36-1
03-08
01-01
03-04
03-05
030-6
03-03
05-05
03-02
08-02
03-07
05-02
03-01
05-01
05-04
08-01
39-2
02-01
09-02
09-04
05-03
04-04
04-03
11-01
04-02
10-02
04-05
04-06
07-01
07-02
44-02
38-1
04-01
43-05
44-01
10-01
06-01
09-01
11-02
12-01
43-04
44-03
N
130
65
0
130 Feet
49-01
45-03
15-01
49-02
M-01
09-03
46-05
44-04
14-01
14-02
14-03
14-05

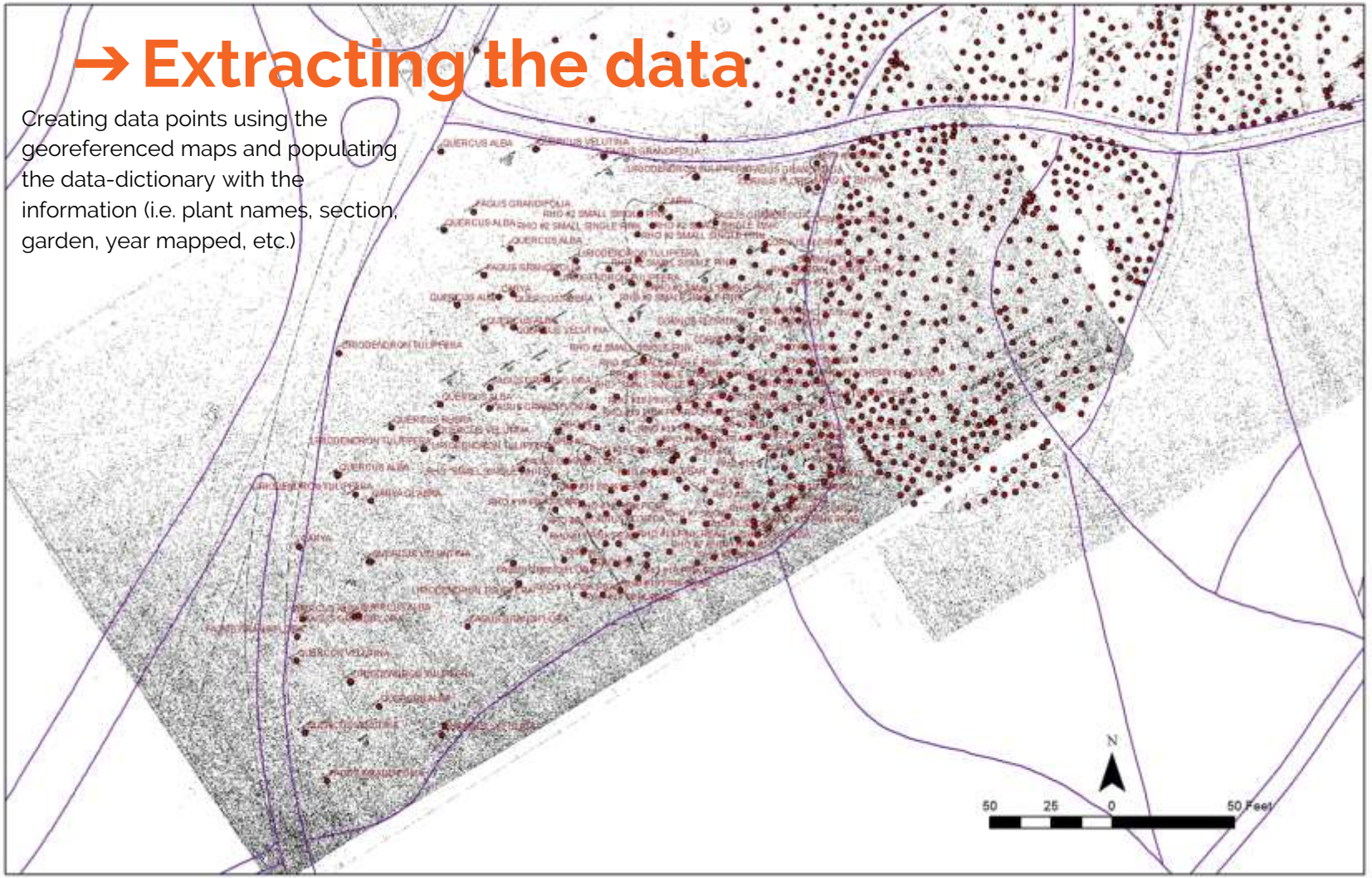

VP-04
VP-05
01-02
36-1
03-08
01-01
03-04
03-05
030-6
03-03
05-05
03-02
08-02
03-07
05-02
03-01
05-01
05-04
08-01
09-02
39-2
02-01
05-03
04-04
09-04
04-03
04-02
11-01
10-02
04-05
04-06
07-01
07-02
44-02
38-1
04-01
43-05
44-01
10-01
09-01
11-02
12-01
43-04
06-01
44-03
N
130
65
0
130 Feet
45-03
49-01
15-01
49-02
M-01
09-03
46-05
44-04
14-01
14-02
14-03
14-05

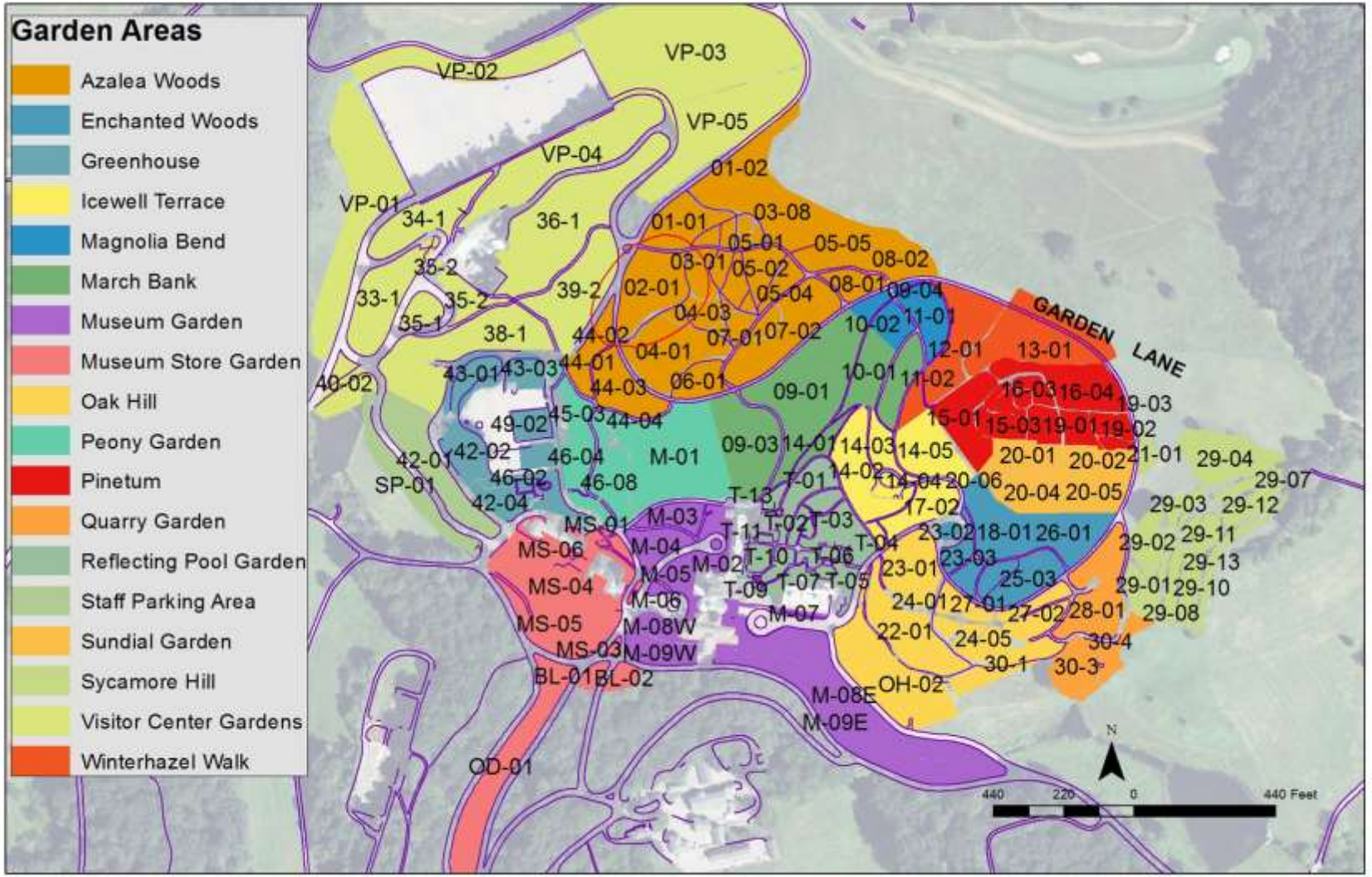

GARDEN LANE
N
250
125
0
250 Feet

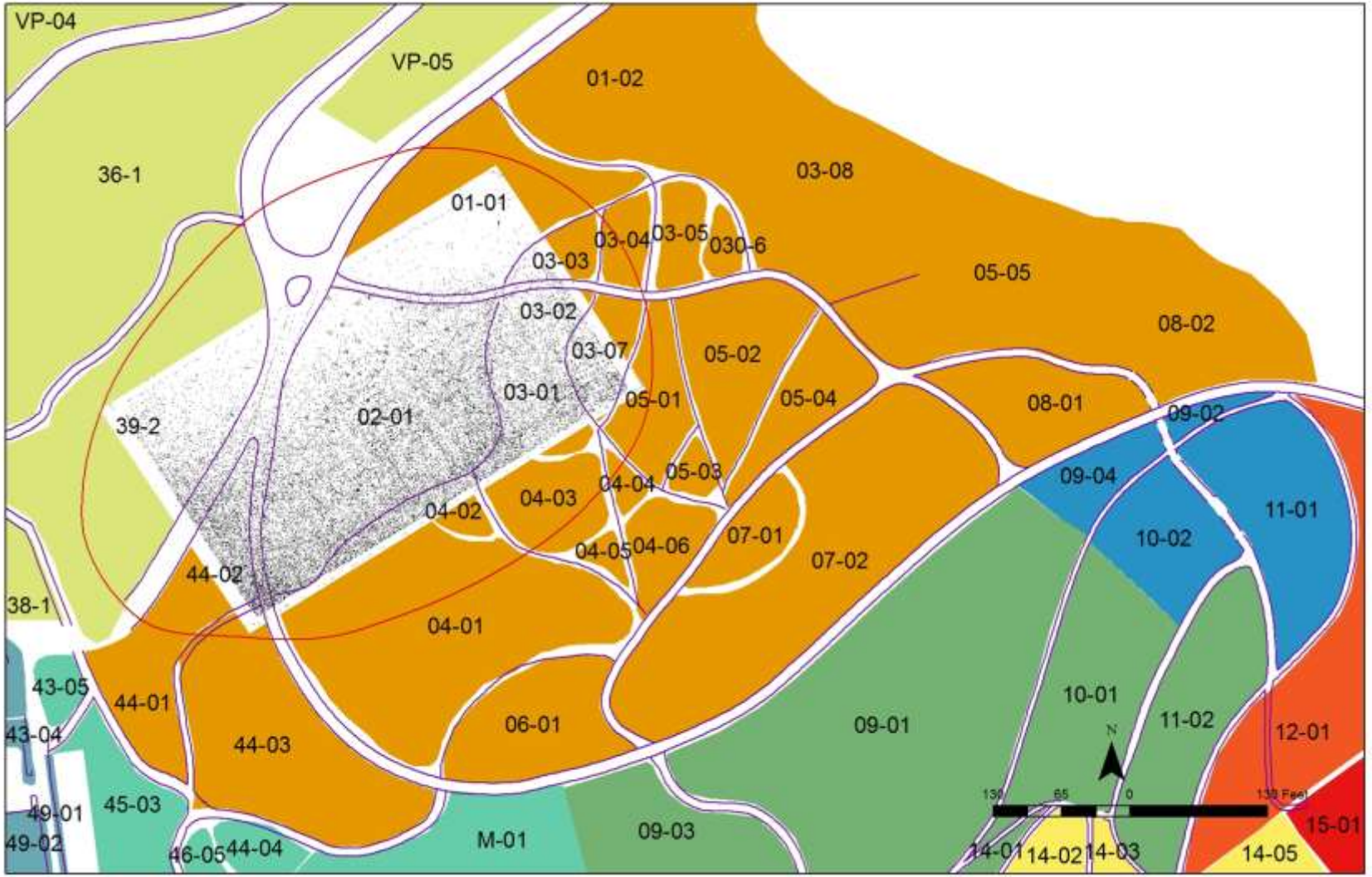

GARDEN LANE
N
410
205
0
410 Feet

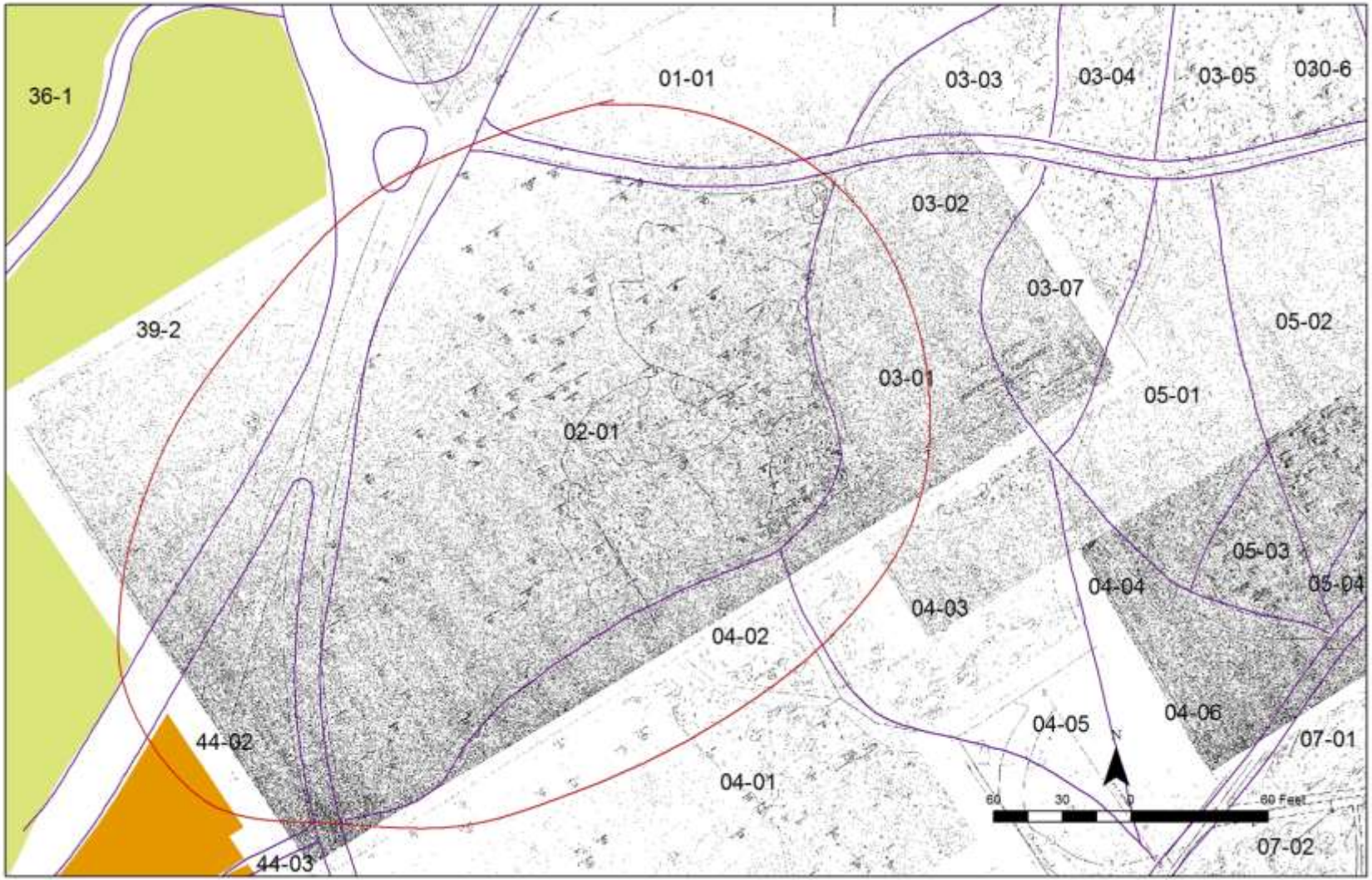
→ Extracting the data

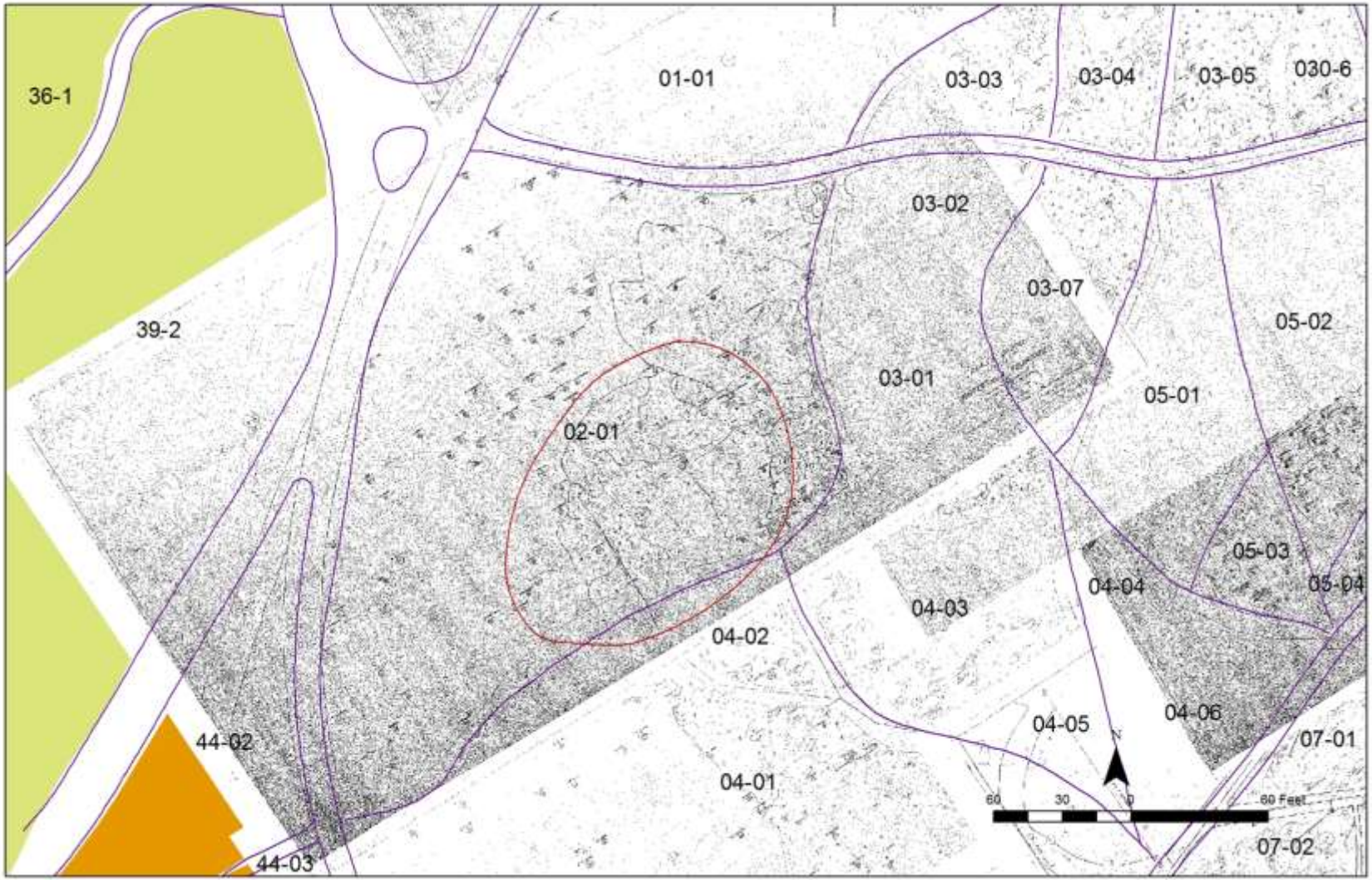
Creating data points using the georeferenced maps and populating the data-dictionary with the information (i.e. plant names, section, garden, year mapped, etc.)



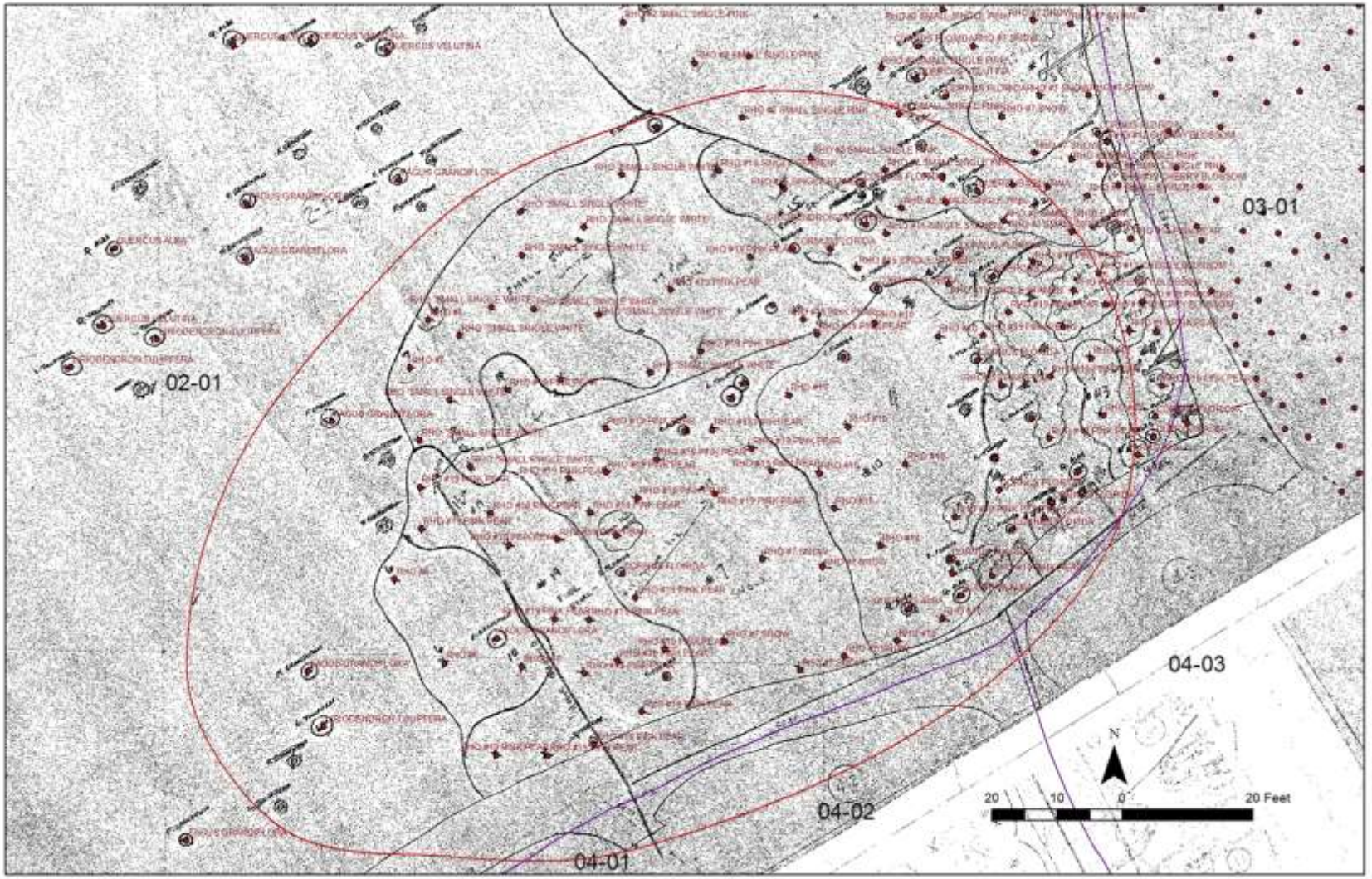

Garden Areas
Azalea Woods
Enchanted Woods
Greenhouse
Icewell Terrace
Magnolia Bend
March Bank
Museum Garden
Museum Store Garden
Oak Hill
Peony Garden
Pinetum
Quarry Garden
Reflecting Pool Garden
Staff Parking Area
Sundial Garden
Sycamore Hill
Visitor Center Gardens
Winterhazel Walk
GARDEN LANE
VP-01
VP-02
VP-03
VP-04
VP-05
OD-01
SP-01
BL-01
BL-02
MS-01
MS-03
MS-04
MS-05
MS-06
M-01
M-02
M-03
M-04
M-05
M-06
M-07
M-08E
M-08W
M-09E
M-09W
OH-02
T-01
T-02
T-03
T-04
T-05
T-06
T-07
T-09
T-10
T-11
T-13
N
440
220
0
440 Feet

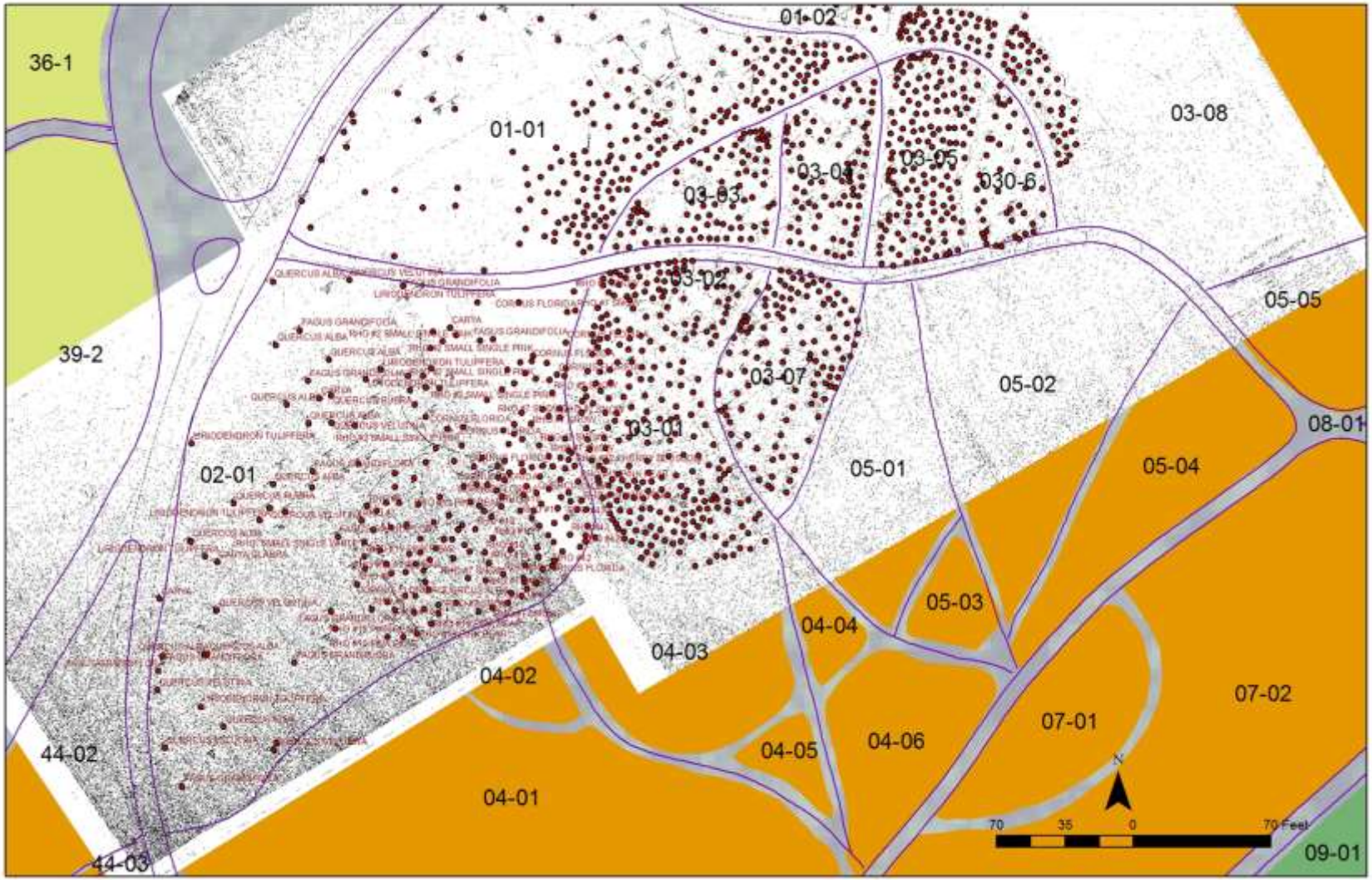

VP-04
VP-05
01-02
36-1
03-08
01-01
03-04
03-05
030-6
03-03
05-05
03-02
08-02
03-07
05-02
03-01
05-01
05-04
08-01
39-2
02-01
09-02
09-04
05-03
04-04
04-03
11-01
04-02
10-02
04-05
04-06
07-01
07-02
44-02
38-1
04-01
43-05
44-01
10-01
06-01
09-01
11-02
12-01
43-04
44-03
N
130
65
0
130 Feet
49-01
45-03
15-01
49-02
M-01
09-03
46-05
44-04
14-01
14-02
14-03
14-05

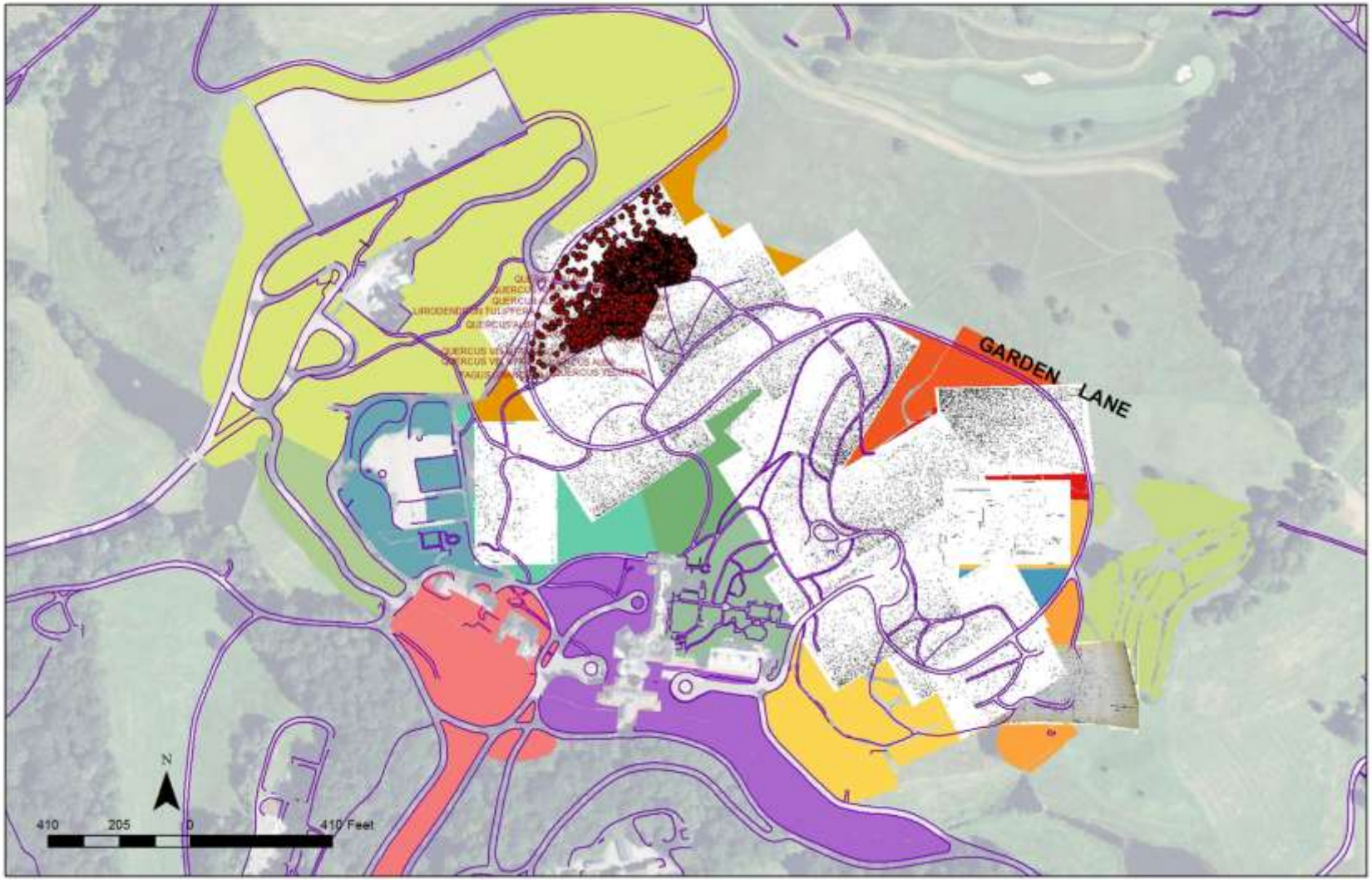

36-1
01-01
03-03
03-04
03-05
030-6
03-02
03-07
05-02
39-2
03-01
05-01
02-01
05-03
04-04
05-04
04-03
04-02
04-05
04-06
07-01
44-02
04-01
60
30
0
60 Feet
07-02
44-03


36-1
01-01
03-03
03-04
03-05
030-6
03-02
03-07
05-02
39-2
03-01
05-01
02-01
05-03
04-04
05-04
04-03
04-02
04-05
04-06
07-01
44-02
04-01
60
30
0
60 Feet
07-02
44-03


03-01
02-01
04-03
04-02
04-01
N
20
10
0
20 Feet


03-01
02-01
04-03
04-02
04-01
N
20
10
0
20 Feet


01-02
36-1
01-01
03-08
03-04
03-05
030-6
03-03
03-02
05-05
39-2
03-07
05-02
08-01
03-01
02-01
05-01
05-04
05-03
04-04
04-03
04-02
07-02
07-01
44-02
04-05
04-06
04-01
70
35
0
70 Feet
09-01
44-03


GARDEN LANE
N
410 205 0 410 Feet

In conclusion

➔This project conserves the old maps

➔Digitizes the data from the maps for easy access in the future

➔This is just one step in the larger ongoing project of inventorying and digital mapping of the garden

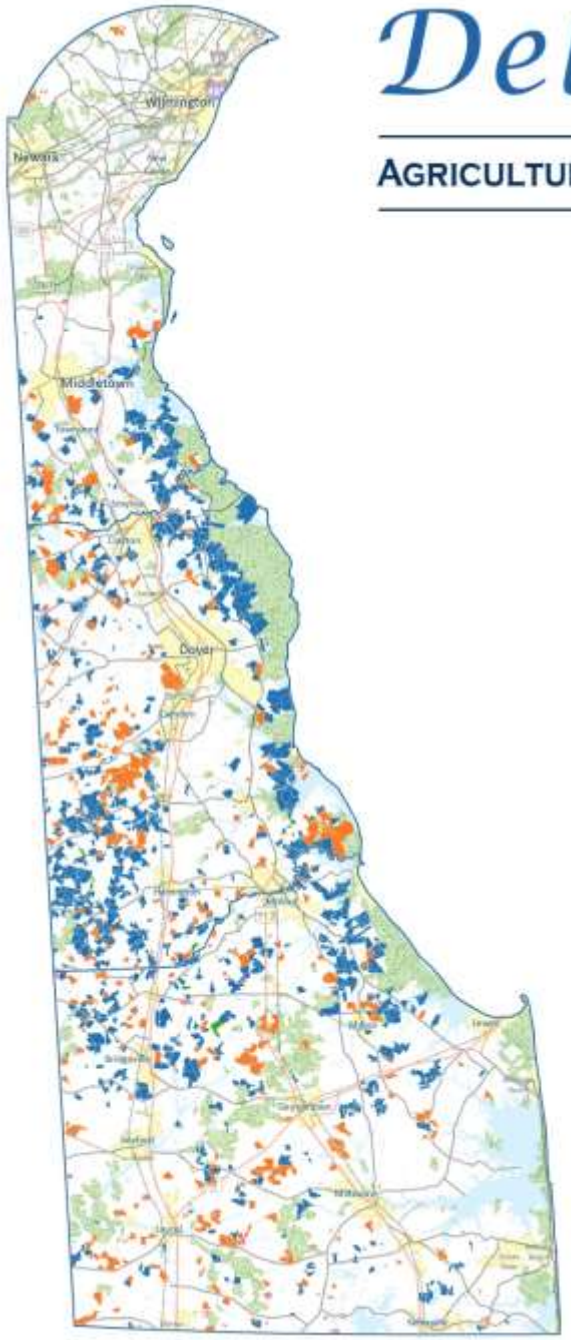
Thanks!

Return on Investment for Inspections with ArcGIS Collector

Jimmy Kroon
Delaware Department of Agriculture

Delaware

Agricultural Land Preservation



Preserved Properties

- Agricultural Easement
- Agricultural District
- Forestland Easement
- Forestland Area
- Young Farmer Easement

- Municipal Boundaries
- Other Public Protected Land

DELAWARE AGRICULTURAL LANDS *Preservation Foundation*

Visit Date: 2/10/2014

Annual Compliance Report

Project ID K-09-12-066D

EMCO FARMS #2 EXPANSION OF THE SHULTIES DISTRICT

KentCounty, Delaware

Project Id:	Parcel Identifiers:	Landowner:	Address:
K-09-12-066D	6-00-14600-01-0800	EMCO PROPERTY, LLC	2729 HOPKINS CEMETERY RD HARRINGTON, DE 19952

Farm Operation: Cropland

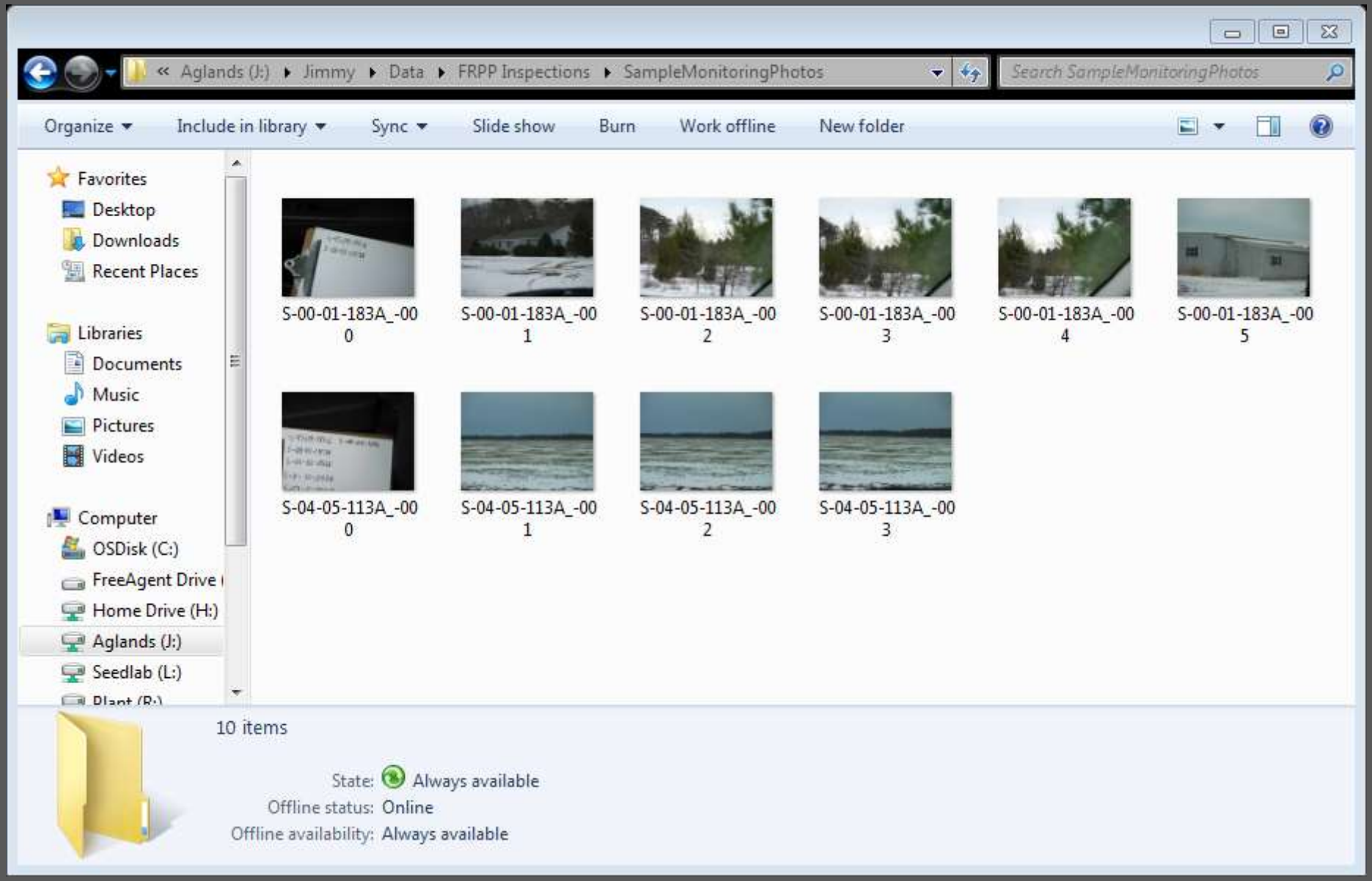
Dwellings: 0

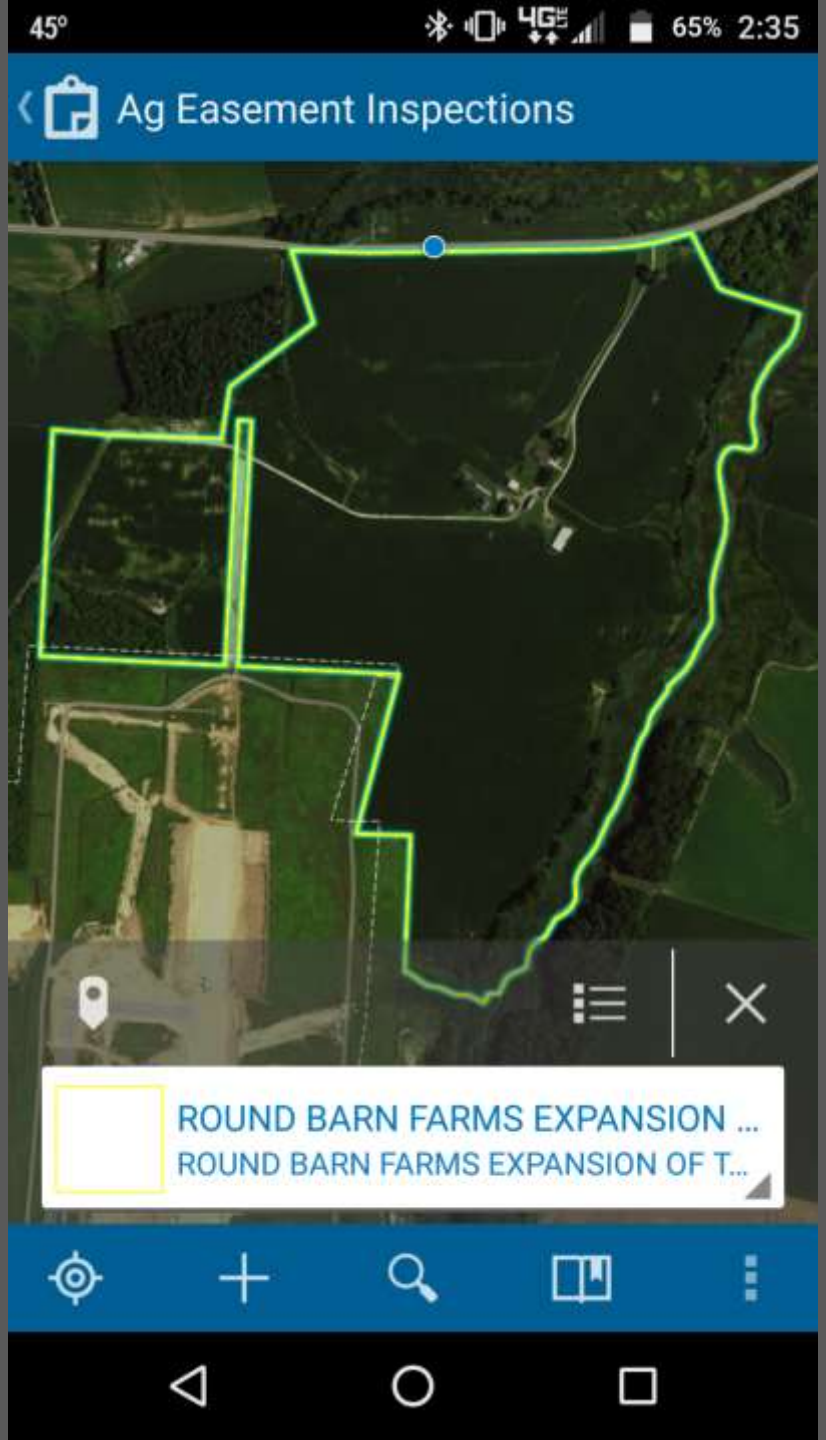
Farm Structures: 0

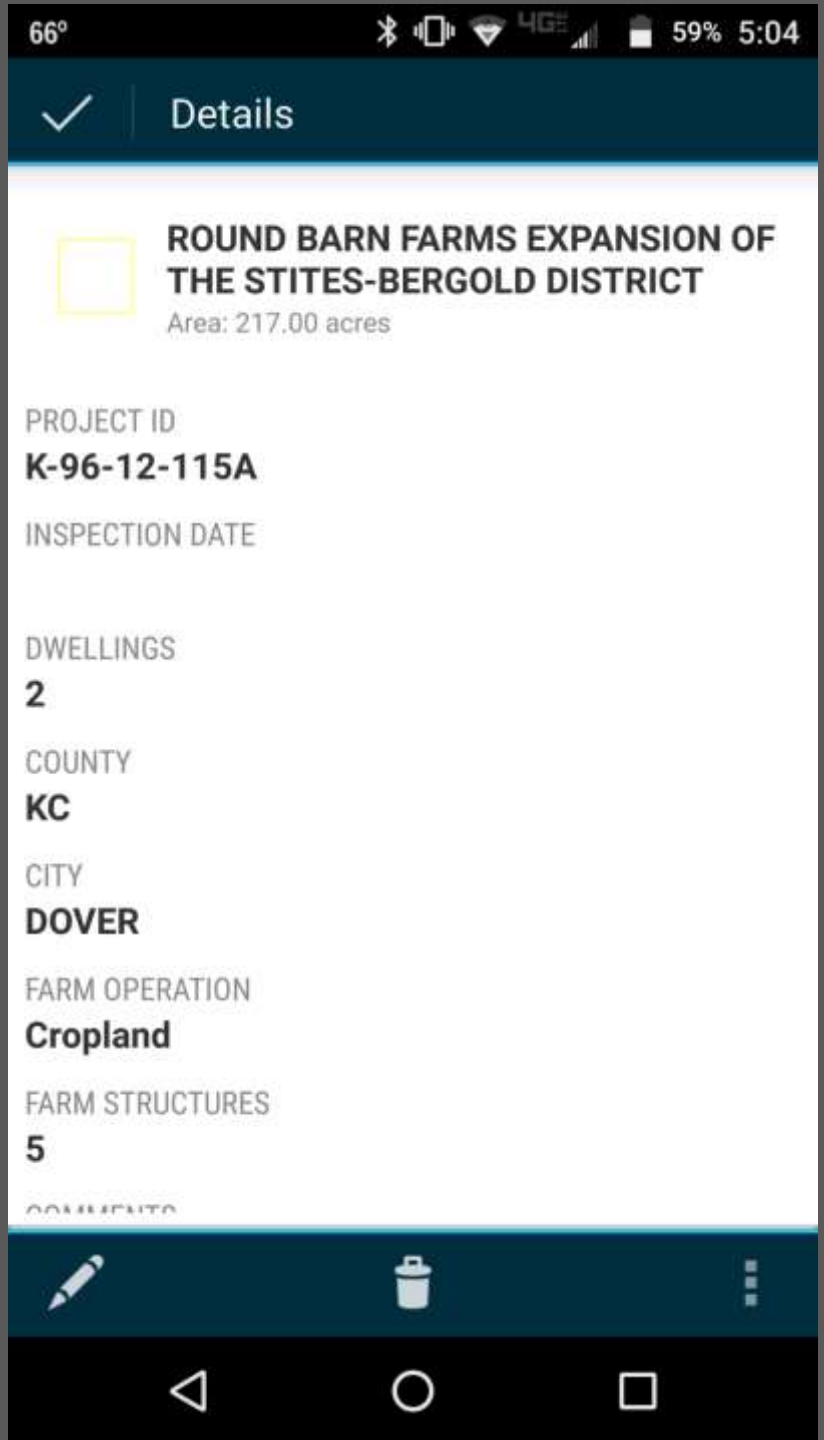
Staff Comments:

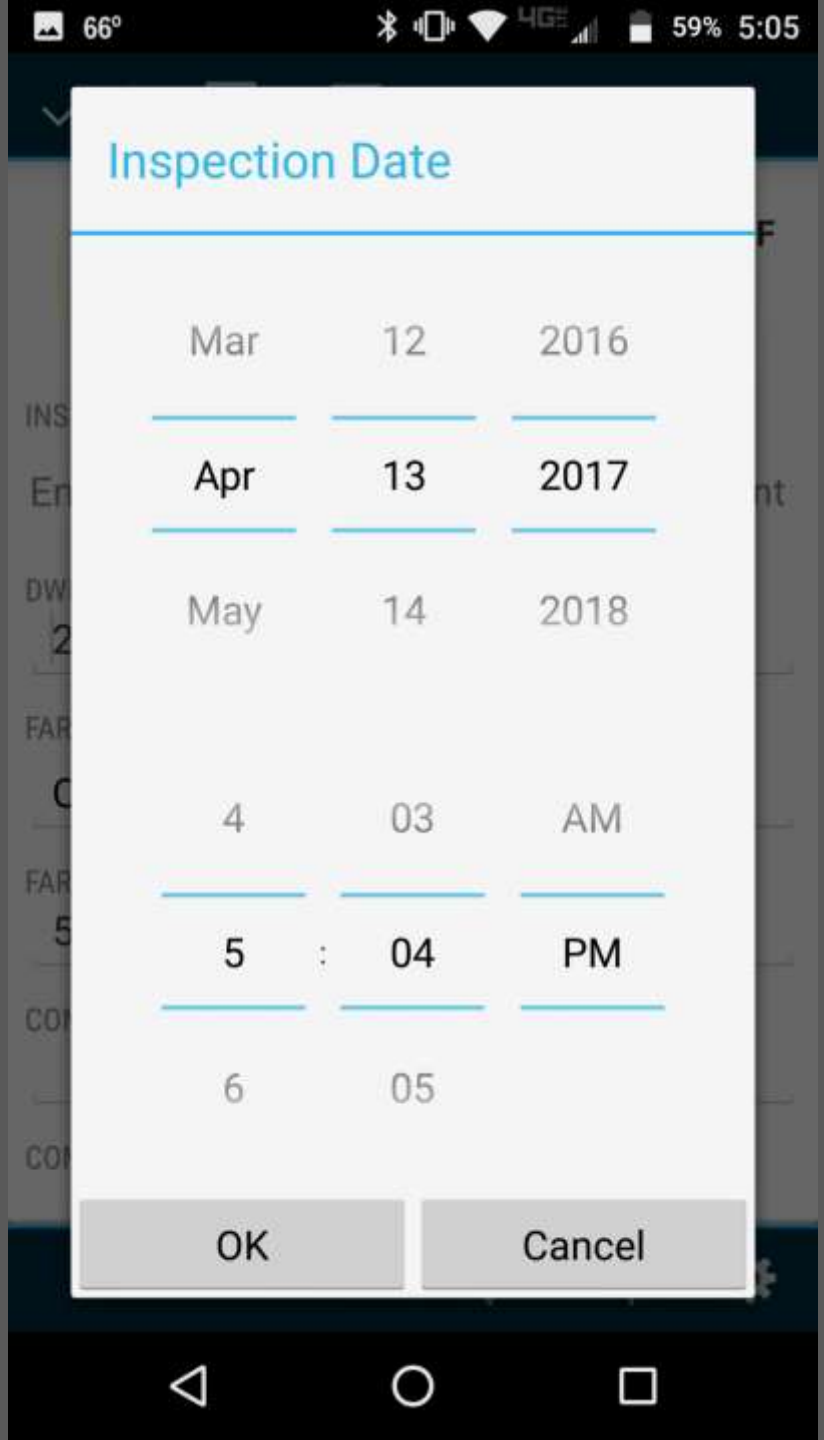
None

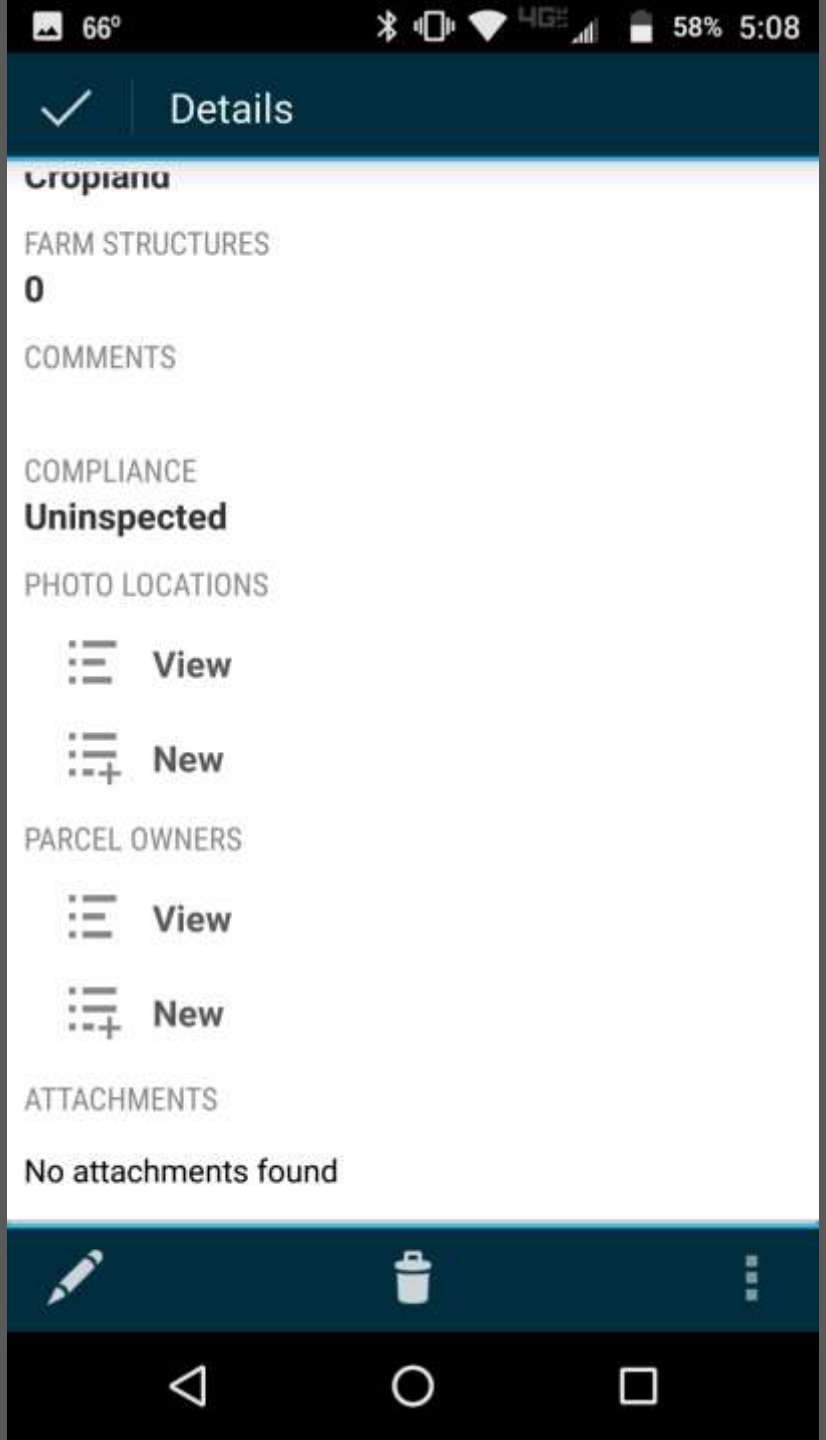
10.48

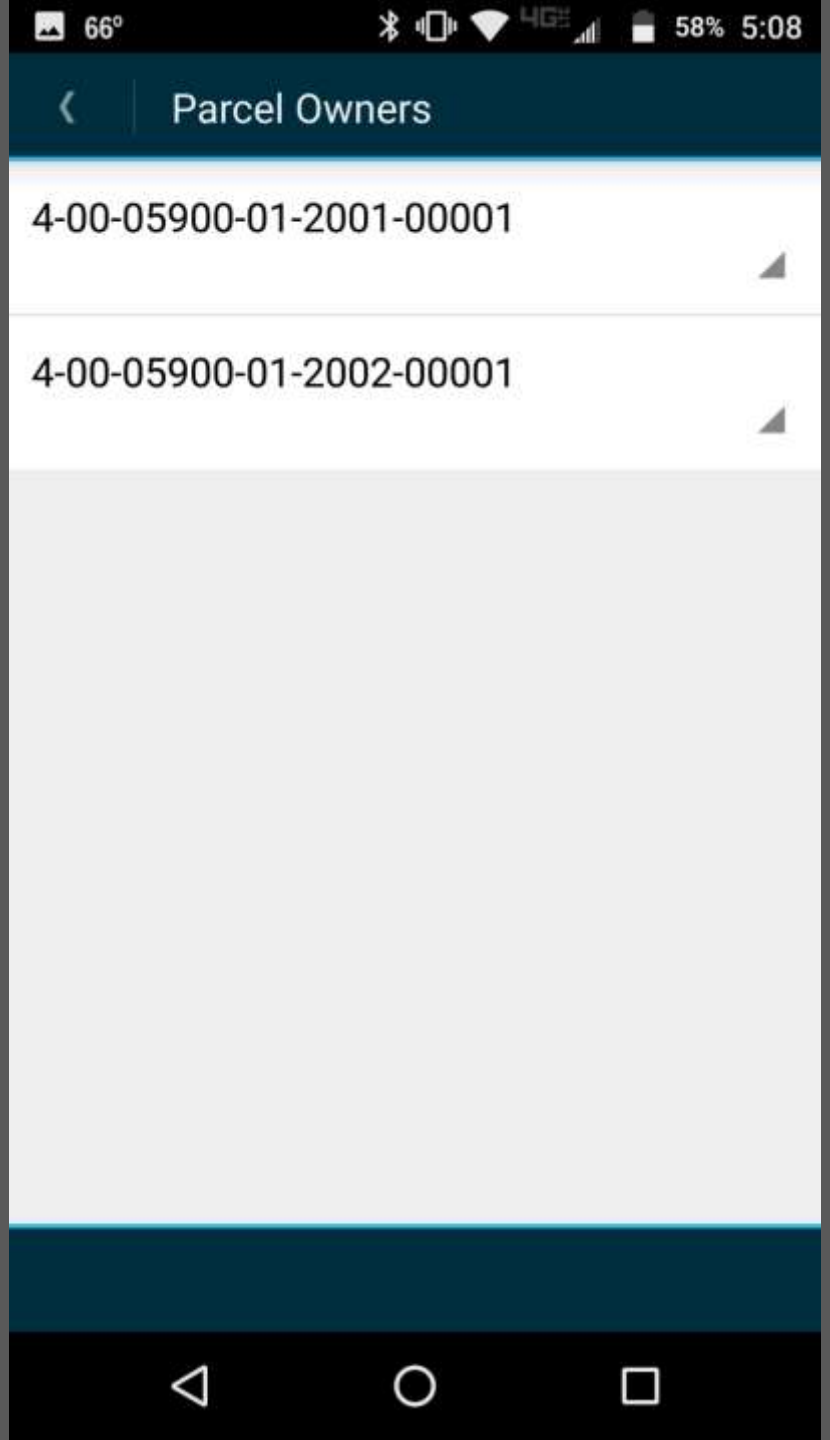

« Aglands (J:) ▸ Jimmy ▸ Data ▸ FRPP Inspections ▸ SampleMonitoringPhotos
Search SampleMonitoringPhotos
Organize
Include in library
Sync
Slide show
Burn
Work offline
New folder
Favorites
Desktop
Downloads
Recent Places
Libraries
Documents
Music
Pictures
Videos
Computer
OSDisk (C:)
FreeAgent Drive
Home Drive (H:)
Aglands (J:)
Seedlab (L:)
S-00-01-183A_-000
S-00-01-183A_-001
S-00-01-183A_-002
S-00-01-183A_-003
S-00-01-183A_-004
S-00-01-183A_-005
S-04-05-113A_-000
S-04-05-113A_-001
S-04-05-113A_-002
S-04-05-113A_-003
10 items
State: Always available
Offline status: Online
Offline availability: Always available


45°
65% 2:35
Ag Easement Inspections
ROUND BARN FARMS EXPANSION ...
ROUND BARN FARMS EXPANSION OF T...

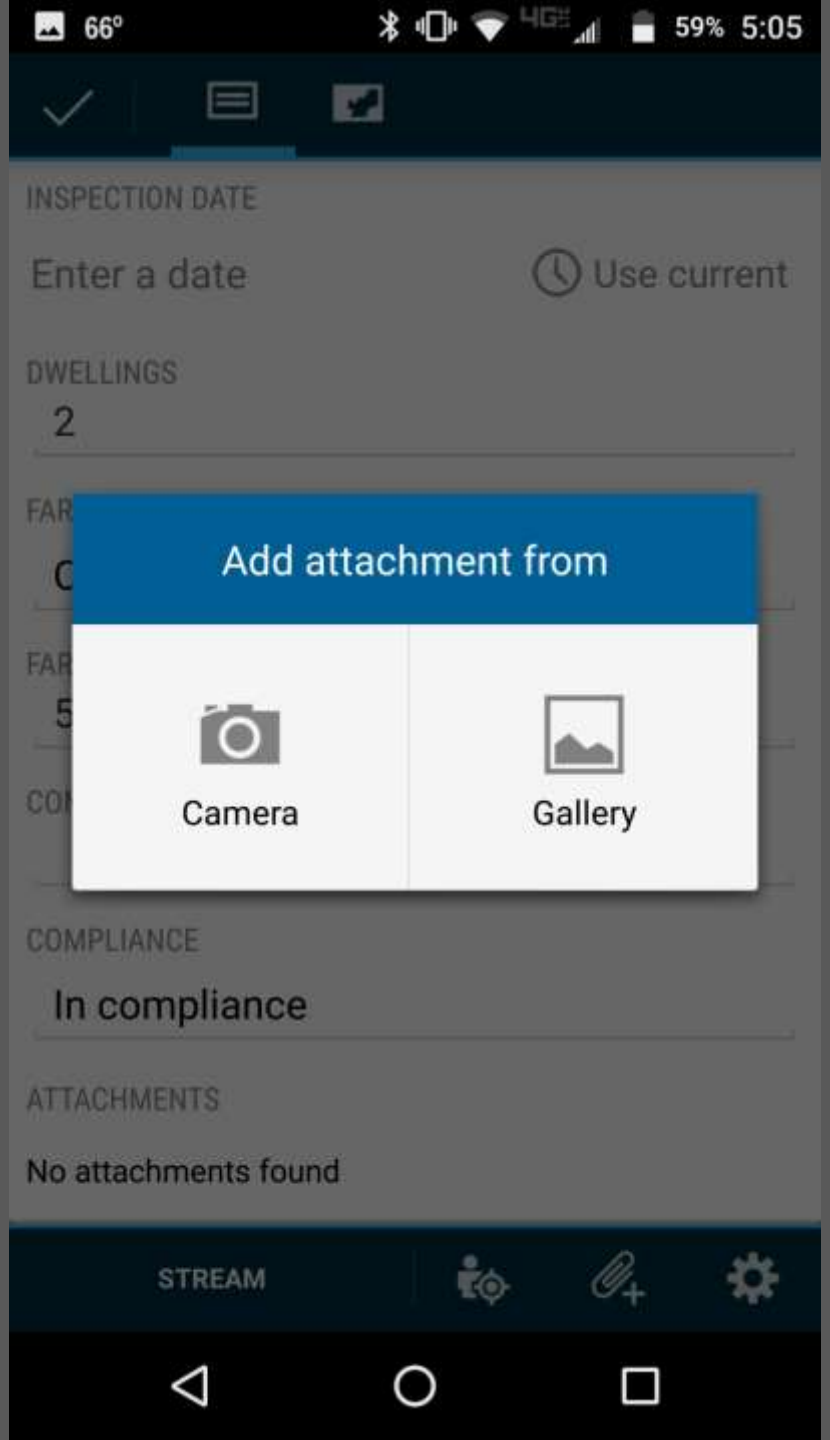

66°
59% 5:04
Details
ROUND BARN FARMS EXPANSION OF THE STITES-BERGOLD DISTRICT
Area: 217.00 acres
PROJECT ID
K-96-12-115A
INSPECTION DATE
DWELLINGS
2
COUNTY
KC
CITY
DOVER
FARM OPERATION
Cropland
FARM STRUCTURES
5


66°
59% 5:05
Inspection Date
Mar 12 2016
Apr 13 2017
May 14 2018
4 03 AM
5 : 04 PM
6 05
OK
Cancel


66°
58% 5:08
Details
Cropland
FARM STRUCTURES
0
COMMENTS
COMPLIANCE
Uninspected
PHOTO LOCATIONS
View
New
PARCEL OWNERS
View
New
ATTACHMENTS
No attachments found


66°
58% 5:08
Parcel Owners
4-00-05900-01-2001-00001
4-00-05900-01-2002-00001


66°
58% 5:08
Details
4-00-05900-01-2001-00001
PROJECT ID
K-96-12-116A
PARCEL ID
4-00-05900-01-2001-00001
DATABASE OWNER
CARTANZA PROPERTIES, LLC
COUNTY OWNER
CARTANZA PROPERTIES, LLC


66°
59% 5:05
INSPECTION DATE
Enter a date
Use current
DWELLINGS
2
Add attachment from
Camera
Gallery
COMPLIANCE
In compliance
ATTACHMENTS
No attachments found
STREAM


66°
58% 5:06
Ag Easement Inspections
17 ft

FRPP Inspection Report_new - ArcMap

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

1:28,430 77% Editor Labeling Best

Table Of Contents

Layers
- Photo Locations
- Farm Inspections
- Parcel Outlines
- Farm Boundary (Index)
- Delaware_NAIP2015_NAD83.jp2
  - RGB
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3
- Delaware_NAD83_Flat.sid
  - RGB
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3

Delaware Agricultural Lands Preservation Foundation

Annual Compliance Report

Project ID: S-05-02-242

Inspection Date: 2/9/2017 3:35:22 PM

GARY L. O'DAY DISTRICT

Sussex County, Delaware

PARCEL ID	DDA DATABASE OWNER	Owner - 2017 County Records
430-17.00-7.00	GARY LEE O'DAY	O'DAY, GARY LEE
430-17.00-7.01	GARY LEE O'DAY	O'DAY, GARY LEE
430-17.00-8.00	GARY LEE O'DAY	O'DAY, GARY LEE
430-17.00-7.02	GARY LEE O'DAY	O'DAY, GARY LEE

Farm Operation:	Cropland
Farm Structures:	5
Dwellings:	2
Allowed Dwellings:	3
Inspection Result:	In compliance

Staff Comments:

New home on the property.

NRCS Agreement Number: 7321J20500H48 Parcel: 3

Picture5

5

Picture6

6

Catalog

Location: Home - Data\FRPP Inspections

- Home - Data\FRPP Inspections
  - 2016 Reports
  - 2017Reports
  - Agreement Numbers
  - InspectionDatabases
  - JKroonEdits
  - Runtime GDB Backups
  - SampleMonitoringPhotos
  - SamplePhotos
  - Shapefiles
  - StateInspections2016
  - Young Farmer Database
  - Scratch.gdb
  - DALPF Monitoring Aerial Comparison.mxd
  - DALPF Monitoring Aerial Comparison-State.mxd
  - FirstMapEdit.mxd
  - FirstMapEditGDB.lyr
  - FRPP Inspection Report.mxd
  - FRPP Inspection Report-NoIDs.mxd
  - FRPP Inspection Report - web based.mxd
  - **FRPP Inspection Report_new.mxd**
  - FRPP_Inspection_Collection.mxd
  - FRPP_Inspection_Service_Map.mxd
  - Screenshot.png
  - Service Map.mxd
- Folder Connections
  - C:\ArcGIS
  - C:\LESA
  - C:\Student
  - E:\Data
  - G:\
  - J:\Jimmy\Data
    - Ag Preservation - 20 Years
    - AgLandAppraisals
    - AgLands Database
    - AnimalHealth
    - ArcPro Maps and Layouts
    - BlockMap
    - Century Farms
    - ChristmasTrees
    - DAFB
    - DALPFbyLegislativeDistricts
    - DE_LandCover_2014
    - Excel Travel Time and Distance
    - Forestry
    - FRPP Inspections

Drawing Arial 10 B I U S-05-02-242 Page Text

5.16 10.81 Inches

ArcGIS Collector Database Shema

Inspection Dataset
Polygon Easement Boundaries

Attributes:
Project ID
Inspection Data

1 to Many (up to 6 per inspection)

Photo Locations - Point

Attributes:
Related Project ID
Point ID
Photo Number
Photo Caption

1 Attached Photo per Location

Attachment Table

Attributes:
Related Point ID
Photo Name (Photo1.jpg)
Photo

Map Series Database Schema

Inspection Dataset
Polygon Easement Boundaries

Attributes:
Project ID
Inspection Data
Photo 1 Caption
Photo 2 Caption
etc...

1 to Many (up to 6 per inspection)

Photo Locations - Point

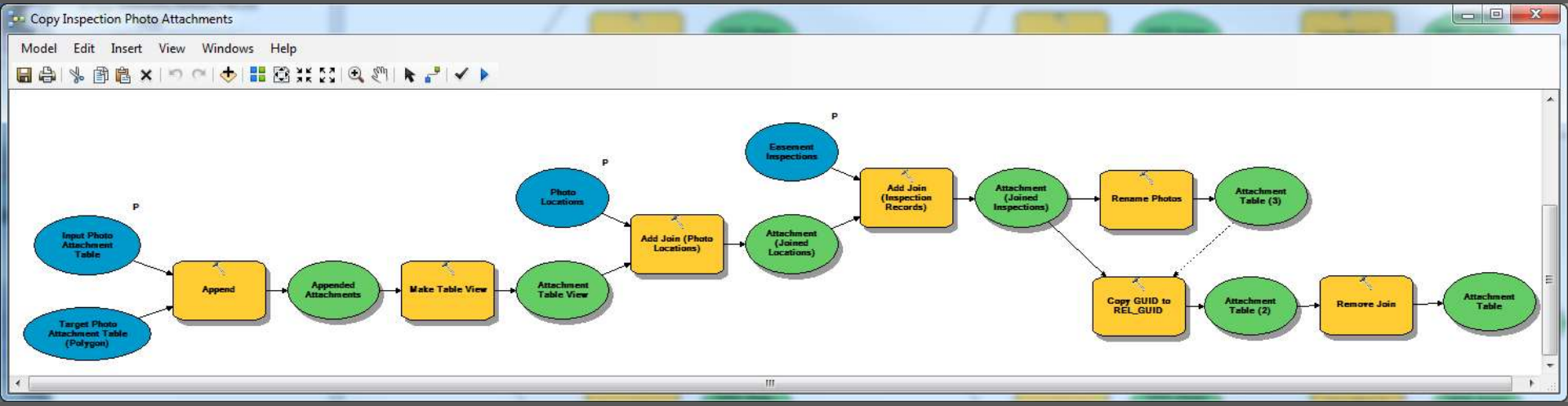
Attributes:
Related Project ID
Point ID
Photo Number

Up to 6 Photos per Inspection

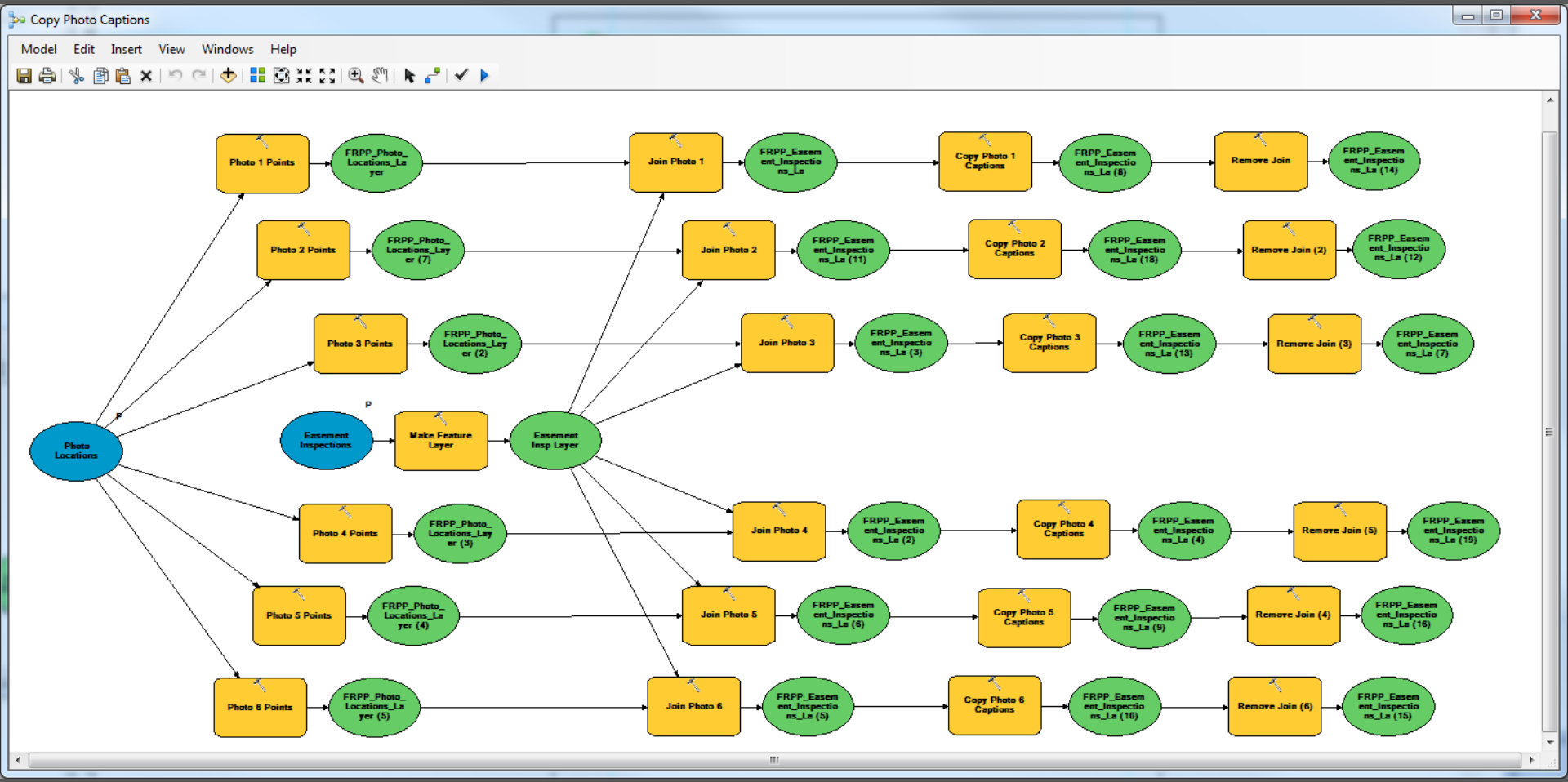
Attachment Table

Attributes:
Related Project ID
Photo Name (Renamed Photo#.jpg)
Photo

Move Photo Attachments Table



Transpose Photo Captions



Captions in Collector DB

Photo #	Caption
1	Cropland
2	Forest
3	Dwelling

Captions in Map Series DB

Caption 1	Caption 2	Caption 3
Cropland	Forest	Dwelling

DELAWARE AGRICULTURAL LANDS
Preservation Foundation

Annual Compliance Report

Project ID: S-05-02-242

GARY L. O'DAY DISTRICT

Inspection Date: 2/9/2017 3:35:22 PM
Sussex County, Delaware

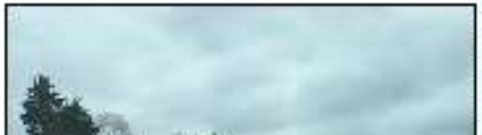
PARCEL ID	DDA DATABASE OWNER	Owner - 2017 County Records
430-17.00-7.00	GARY LEE O'DAY	O'DAY, GARY LEE
430-17.00-7.01	GARY LEE O'DAY	O'DAY, GARY LEE
430-17.00-8.00	GARY LEE O'DAY	O'DAY, GARY LEE
430-17.00-7.02	GARY LEE O'DAY	O'DAY, GARY LEE

Farm Operation:	Cropland
Farm Structures:	5
Dwellings:	2
Allowed Dwellings:	3
Inspection Result:	In compliance

Staff Comments:

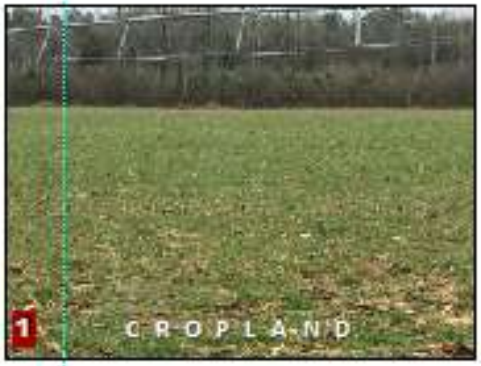
New home on the property.

NRCS Agreement Number:
7321J20500H4B **Parcel:** 3



New home on the property.

NRCS Agreement Number:
7321J20500H4B Parcel: 3



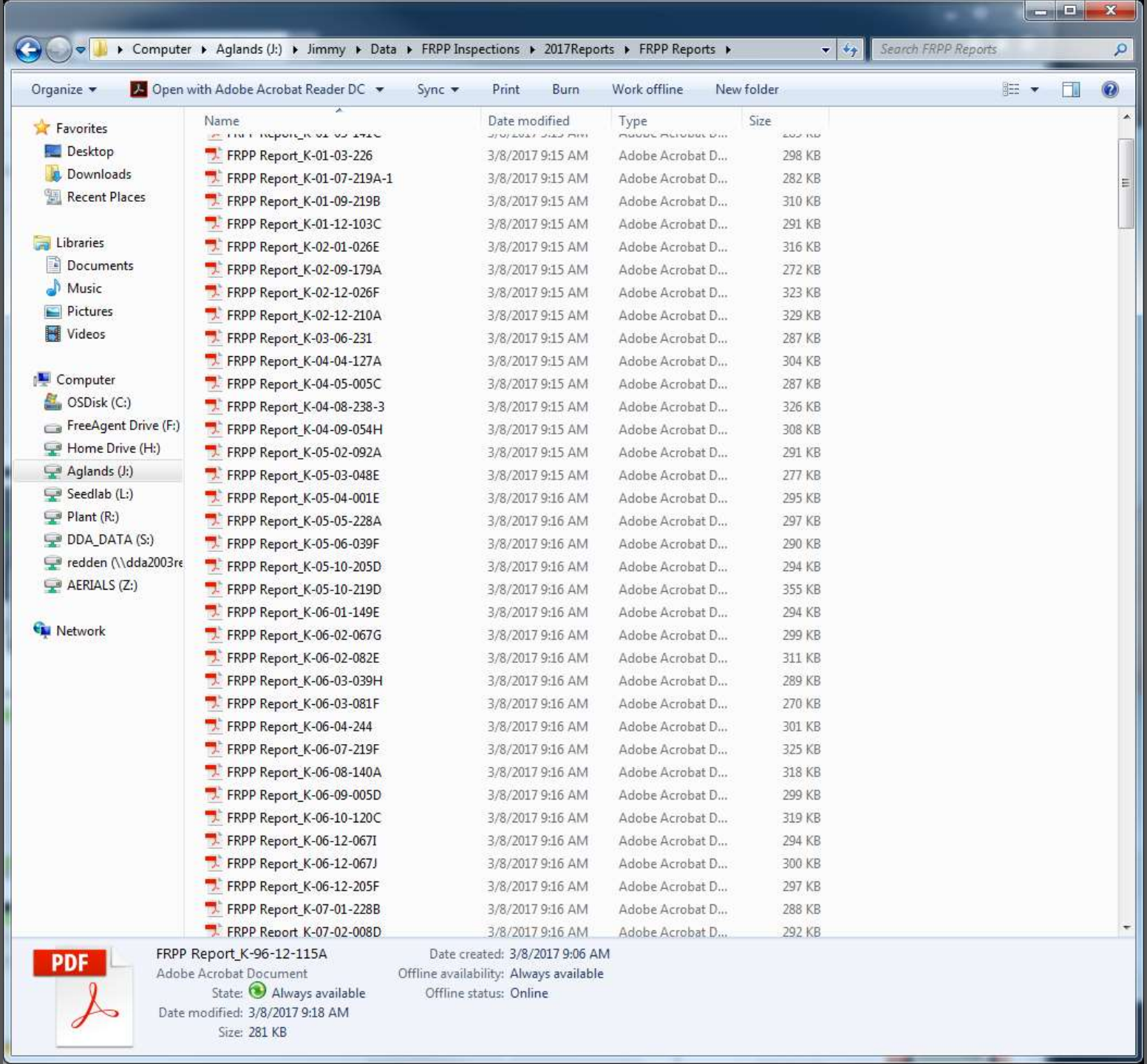
Picture5

5

Picture6

6

10 B I U S-05-02-242


Computer ▸ Aglands (J:) ▸ Jimmy ▸ Data ▸ FRPP Inspections ▸ 2017Reports ▸ FRPP Reports ▸
Search FRPP Reports
Organize
Open with Adobe Acrobat Reader DC
Sync
Print
Burn
Work offline
New folder
Favorites
Desktop
Downloads
Recent Places
Libraries
Documents
Music
Pictures
Videos
Computer
OSDisk (C:)
FreeAgent Drive (F:)
Home Drive (H:)
Aglands (J:)
Seedlab (L:)
Plant (R:)
DDA_DATA (S:)
redden (\\dda2003re
AERIALS (Z:)
Network
Name
Date modified
Type
Size
FRPP Report_K-01-03-226 3/8/2017 9:15 AM Adobe Acrobat D... 298 KB
FRPP Report_K-01-07-219A-1 3/8/2017 9:15 AM Adobe Acrobat D... 282 KB
FRPP Report_K-01-09-219B 3/8/2017 9:15 AM Adobe Acrobat D... 310 KB
FRPP Report_K-01-12-103C 3/8/2017 9:15 AM Adobe Acrobat D... 291 KB
FRPP Report_K-02-01-026E 3/8/2017 9:15 AM Adobe Acrobat D... 316 KB
FRPP Report_K-02-09-179A 3/8/2017 9:15 AM Adobe Acrobat D... 272 KB
FRPP Report_K-02-12-026F 3/8/2017 9:15 AM Adobe Acrobat D... 323 KB
FRPP Report_K-02-12-210A 3/8/2017 9:15 AM Adobe Acrobat D... 329 KB
FRPP Report_K-03-06-231 3/8/2017 9:15 AM Adobe Acrobat D... 287 KB
FRPP Report_K-04-04-127A 3/8/2017 9:15 AM Adobe Acrobat D... 304 KB
FRPP Report_K-04-05-005C 3/8/2017 9:15 AM Adobe Acrobat D... 287 KB
FRPP Report_K-04-08-238-3 3/8/2017 9:15 AM Adobe Acrobat D... 326 KB
FRPP Report_K-04-09-054H 3/8/2017 9:15 AM Adobe Acrobat D... 308 KB
FRPP Report_K-05-02-092A 3/8/2017 9:15 AM Adobe Acrobat D... 291 KB
FRPP Report_K-05-03-048E 3/8/2017 9:15 AM Adobe Acrobat D... 277 KB
FRPP Report_K-05-04-001E 3/8/2017 9:16 AM Adobe Acrobat D... 295 KB
FRPP Report_K-05-05-228A 3/8/2017 9:16 AM Adobe Acrobat D... 297 KB
FRPP Report_K-05-06-039F 3/8/2017 9:16 AM Adobe Acrobat D... 290 KB
FRPP Report_K-05-10-205D 3/8/2017 9:16 AM Adobe Acrobat D... 294 KB
FRPP Report_K-05-10-219D 3/8/2017 9:16 AM Adobe Acrobat D... 355 KB
FRPP Report_K-06-01-149E 3/8/2017 9:16 AM Adobe Acrobat D... 294 KB
FRPP Report_K-06-02-067G 3/8/2017 9:16 AM Adobe Acrobat D... 299 KB
FRPP Report_K-06-02-082E 3/8/2017 9:16 AM Adobe Acrobat D... 311 KB
FRPP Report_K-06-03-039H 3/8/2017 9:16 AM Adobe Acrobat D... 289 KB
FRPP Report_K-06-03-081F 3/8/2017 9:16 AM Adobe Acrobat D... 270 KB
FRPP Report_K-06-04-244 3/8/2017 9:16 AM Adobe Acrobat D... 301 KB
FRPP Report_K-06-07-219F 3/8/2017 9:16 AM Adobe Acrobat D... 325 KB
FRPP Report_K-06-08-140A 3/8/2017 9:16 AM Adobe Acrobat D... 318 KB
FRPP Report_K-06-09-005D 3/8/2017 9:16 AM Adobe Acrobat D... 299 KB
FRPP Report_K-06-10-120C 3/8/2017 9:16 AM Adobe Acrobat D... 319 KB
FRPP Report_K-06-12-067I 3/8/2017 9:16 AM Adobe Acrobat D... 294 KB
FRPP Report_K-06-12-067J 3/8/2017 9:16 AM Adobe Acrobat D... 300 KB
FRPP Report_K-06-12-205F 3/8/2017 9:16 AM Adobe Acrobat D... 297 KB
FRPP Report_K-07-01-228B 3/8/2017 9:16 AM Adobe Acrobat D... 288 KB
FRPP Report_K-07-02-008D 3/8/2017 9:16 AM Adobe Acrobat D... 292 KB
PDF
FRPP Report_K-96-12-115A
Adobe Acrobat Document
State: Always available
Date modified: 3/8/2017 9:18 AM
Size: 281 KB
Date created: 3/8/2017 9:06 AM
Offline availability: Always available
Offline status: Online

Return on Investment

GIS Project ROI and Benefits Report

Project Name: Monitoring Agriculture Easements with ArcGIS Collector

Department: Delaware Department of Agriculture - Land Preservation and Planning Section

Project Manager: Jimmy Kroon - GIS Coordinator, Delaware Dept of Agriculture

Project Completion Date: February 2016

Summary:
The Delaware Department of Agriculture runs three land preservation programs which hold 864 permanent easements covering over 129,000 acres of Delaware farm and forest land. Easements have been purchased over the past 20 years at a cost of over $219 million. The programs also hold 425 10-year district agreements (temporary easements) on 55,000 acres of farmland. Each year, DDA staff make site visits to ensure that easement and district requirements are being met. Site visits generate inspection notes and photos that are entered on inpection reports that include a map of the property, inspection results, photos, captions, and photo locations. Prior to 2016, reports were completed manually which was time consuming and tedious. In 2016, inspections were completed using ArcGIS collector which allowed inspection notes, photos, and photo locations to be stored in a geodatabase and later used to automatically generate reports.

Describe pervious workflow limitations:
Inspections were performed by recording data manually and taking photos with a digital camera. To keep track of photos, Project ID is written on paper and photographed before each inspection. Inspection notes were recorded on a laptop using a word processor (not the inspection report document). After inspections, photos must be organized by visually reading property ID photos for each property - renaming files and copying into a folder structure. Photos and inspection data are manually entered into inspection reports. Reports contain a map of the property boundaries and photo locations. Map is recentered and photo locations added manually. Photo captions are typed by hand. Inspectors must use paper maps and landscape interpretation to determine location relative to property boundaries.

Describe implemented enhancement:
ArcGIS Collector is used to perform inspections and take photos. Inspection data, photo locations and captions, are stored in a geodatabase and all data is associated with the farms geodatabase record. When a set of inspections are complete, the geodatabase is used to generate inspection reports that automatically incorporate data, photos, captions, and photo locations that were stored during the inspection. Hours spent generating reports reduced by 95%.

ArcGIS Collector also streamlines the field portion of inspections. It shows inspectors their current location relative to property boundaries, displays which properties have been inspected on the map, shows current parcel ownership data from the counties, and automatically associates data and photos with the property's geodatabase record (removing the need for inspectors to work with multiple devices for data and photos). Hours spent inspecting properties reduced by 50%.

Automatic report generation also allowed more data to be added from the AgLands GIS and County GIS including current parcel ownership and dwelling allowance, which were requested by one of our funding partners - USDA-NRCS.

Previous Workflow Costs:			
Hours to complete previous workflow	330.0	Previous workflow cost	$17,160
Hourly wage rate*	$52	Previous annual cost	$34,596
Annual occurrence of workflow	2		
Other annual costs (Voice phone plan)	$276		
Enhanced Workflow Costs			
Hours to complete workflow after enhancement	83.0	Enhanced workflow cost	$4,316
Hourly wage rate*	$52	Enhanced annual cost	$9,232
Annual occurrence of workflow	2		
Other annual costs (Smartphone data plan)	$600		
Enhancement Production Costs and Savings			
Hours to complete enhancement (Planner)	28.0	Enhancement cost	$2,654
Hourly wage rate*	$28		
Hours to complete enhancement (Sen Software Engineer)	13.0		
Hourly wage rate*	$90	Initial Annual Savings	$22,710
Other expenses (Smartphone & accessories)	$700	Future Annual Savings	$25,364
Calculated ROI			
		Initial Year ROI	169%
ROI=Savings minus Enhancement Cost divided by Enhancement Cost plus Enhanced Annual Cost		Future Annual ROI	213%

Tangible Benefits to the Organization: (i.e., quality or quantity improvements, effects to throughput, cost avoidance, better decisions, etc.)

Benefit 1: Staff avoid the tedious task of manually preparing 700+ reports annually.

Benefit 2: Reports are available within days after completion of inspections. Previously report lagged several months behind inspections.

Benefit 3: Inspection staff reports that they complete twice as many inspections per day using Collector (compared to previous method) due to streamlined data recording. Collector also streamlines by showing inspectors exactly where property boundaries are, making it easier for them to determine if rural buildings and houses are on within property boundaries or not.

Tangible Benefits to Others Outside the Organization: (i.e., other divisions, state agencies, stakeholders, public, etc.)

Benefit 1: Our funding partner, USDA-NRCS, gets easement reports more quickly and containing more information that they've requested.

Benefit 2:

Completed by: Jimmy Kroon — **Date:** 2/15/2017

*Generalized wage rates are used for simplicity and consistency:

Planner: $52/hr — Source: PG 17 (85% of Midpoint) + OEC, Health (State expense, lowest cost emp only plan), & Indirect Costs

Senior Software Engineer: $90/hr — Source: Rate charged by DTI for SSE time on project estimates.

DOWNLOAD ME

⬇

goo.gl/ltv7V3

or scan

Description	Hours	Multiplier	Total Hours	Fixed Costs	
Previous Workflow					
Perform Inspections	150	1	150		
Copy photos off camera. Organize and rename photos by property. Open report document, recenter map on property, enter inspection data, add photos, captions, and photo location pointers. Check parcel ownership.	0.5	360	180		
Voice only mobile phone plan - $23/month * 12 = $276				$276	annually
		Total	**330**	**$276**	
Enhanced Workflow					
Prepare inspection geodatabase	2	1	2		
Perform Inspections	75	1	75		
Copy geodatabase and run model to convert data format for reporting.	1	1	1		
Retrieve county parcel records and convert for reporting	2	1	2		
Error check inspection data	3	1	3		
Merge automated report document with inspection geodatabase and export reports	2	1	2		
Smartphone voice & data - $50/month * 12 = $600				$600	annually
		Total	**83**	**$600**	
Enhancement Production Costs					
Geodatabase & report design	20	1	20		Planner
Server geodatabase setup	13	1	13		SSE
Setup ArcGIS Collector & testing	8	1	8		Planner
Smartphone & Accessories				$700	one-time
		Total	**41**	**$700**	

Return on Investment Analysis

Inspection Workflow

	Original *(hours)*	Enhanced *(hours)*	Time Saved
Inspection	300	150	50%
Reporting	360	16	95%

Enhancement Production

41 Hours

Annual Savings

First Year	Future Years
$22,710	$25,364
Inc. Production Costs	

Tangible Benefits to the Organization: (i.e., quality or quantity improvements, effects to throughput, cost avoidance, better decisions, etc.)
Benefit 1: Staff avoid the tedious task of manually preparing 700+ reports annually.
Benefit 2: Reports are available within days after completion of inspections. Previously report lagged several months behind inspections.
Benefit 3: Inspection staff reports that they complete twice as many inspections per day using Collector (compared to previous method) due to streamlined data recording. Collector also streamlines by showing inspectors exactly where property boundaries are, making it easier for them to determine if rural buildings and houses are on within property boundaries or not.
Tangible Benefits to Others Outside the Organization: (i.e., other divisions, state agencies, stakeholders, public, etc.)
Benefit 1: Our funding partner, USDA-NRCS, gets easement reports more quickly and containing more information that they've requested.

YOU SHOULD DO THIS!


SEND QUESTIONS TO NORMAN!!
Or me...
jimmy.kroon@state.de.us
DOWNLOAD THE ROI HERE
https://goo.gl/Itv7V3